

ACIDIC PRECIPITATION

IN ONTARIO STUDY

ANNUAL STATISTICS OF

CONCENTRATION AND DEPOSITION

DAILY PRECIPITATION AND

AIR MONITORING NETWORK

1988

MAY 1990



Ontario

Environment
Environnement

Jim Bradley, Minister/ministre

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1988

Report prepared for:
Air Resources Branch
Ontario Ministry of the Environment

Report prepared by:
A.P.I.O.S. Coordination Office
Ontario Ministry of the Environment

MAY 1990



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ACKNOWLEDGEMENT

This report was prepared by Diane Green and Joe Lam of the APIOS Atmospheric Deposition and Chemistry Program. However, the data themselves are a product of the combined efforts of many individuals. Collection of air filter samples was coordinated by Bill Trayling (in Northeastern Region), Steve Elliott (in Southeastern Region), Scott Kennedy (in Southwestern Region), Wim Smits (in Northwestern Region) and J.P. Varto (in Central Region). Sample handling was carried out by Sue Lampinen and Celine Audette. Chemical analyses were performed at the Laboratory Services and Applied Research Branch under the coordination of Frank Tomassini. Data entry was performed by Diana Rhodes and co-ordination of data entry and records management by Peter Maheras. Joe Lam provided invaluable assistance with systems development. Data validation and overall systems management was performed by Diane Green. All enquiries regarding the reported data should be directed to Neville Reid, Co-Ordinator, Atmospheric Deposition and Chemistry Program (416) 326-1691.

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Dawson	17	3
Dorset	08	4
Egbert	20	5
Fernberg	16	6
Gowganda	18	7
High Falls	19	8
Longwoods	02	9
Melbourne	01	10
Nithgrove	07	11
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High Falls	19	33
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Melbourne	01	35
Nithgrove	07	36
North Easthope	03	37
Penn. State	n/a	38
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PART I

INTRODUCTION

INTRODUCTION

This report was prepared by Diane Green. The statistical summaries presented in this report pertain to the 1988 analytical results obtained from the Acidic Precipitation in Ontario Study (APIOS) daily precipitation and air monitoring network. The relevant data can be obtained on request from the Air Resources Branch of the Ministry. All available data are utilized in the calculations except results reported as being unreliable (i.e. results are identified as unreasonable values by using the validation procedures; detailed description of the validation procedures is available from the Ministry upon request) or approximate (i.e., inexact results are reported due to laboratory difficulties, such as may be encountered in calibration, or when the sample cannot be re-analyzed to confirm the reported values). In a very few cases, concentration levels exceeded the upper limit of the range of the chemical analysis. Rather than using the upper limit, a decision was made to exclude these values from the statistics generated in this report. If a reported value is labelled as $<W$, it is replaced by a "zero". W is the level which the analytical technique cannot distinguish from zero. Prior to 1986, if a level was recorded less than the detection limit, T , a value corresponding to one half the detection limit is utilized for statistical calculations as reported in the statistical summaries. These values are not longer halved. Note that T is normally about ten times W , and values above the T criterion are considered to be precise and accurate. W corresponds to approximately one standard deviation of low level duplicates or real samples.

The reported precipitation gauge depth (standard range gauge or nipher shielded snow gauge) is utilized in the calculation of deposition. If a rain gauge value is not available then the collected sample value is converted to its equivalent precipitation depth and is used in the deposition calculation.

In the air concentration statistical summaries, "Nitric" represents "Nitric Acid" and "Total NO_3 " represents total nitrates calculated by the summation of particulate "Nitrate" and "Nitric Acid". The air filter measurement for sulphur dioxide includes a contribution from nylon-filter impregnated SO_2 . In these reports the sulphur on nylon filters is interpreted as sulphur dioxide. However, it is possible that organic sulphur compounds also contribute to this loading.

Methods do not currently exist to quantify this contribution in routine network
estimation.

The statistical summaries presented in Parts III to VII include the number of samples, mean (arithmetic/geometric), standard deviation (arithmetic/geometric), maximum, minimum and quartiles and volume weighted means using precipitation gauge depths where appropriate.

PART II

STATION DESCRIPTION AND LOCATION MAP

LEGEND

1. Melbourne
2. Longwoods
3. N. Easthope
4. Wellesley
5. Raven Lake
6. Balsam Lake
7. Nithgrove
8. Dorset
9. Whitman Creek
- 9A. Wilmer
10. Railton
11. Charleston Lake
12. Graham Lake
13. Forbes Township
14. Quetico Centre
15. Lac La Croix
16. Fernberg
17. Dawson
18. Gowganda
19. High Falls
20. Egbert
21. Penn State (Pa)

0 Km 240



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APIOS DAILY SEQUENTIAL SAMPLERS
CONVERSION TO ERT FILTERS

1 9 8 8

DORSET 1	2-stage 47mm June22-July18	3-stage 47mm July19-Aug17	3-stage 50mm Aug18-onwards
DORSET 2	2-stage 47mm June22-July18	2-stage 47mm/6hr July19-Aug14	2-stage 50mm/6hr Aug15-Sept1
	2-stage 50mm Sept2-Oct19	3-stage 50mm Oct20-onwards	
EGBERT	3-stage 50mm from inception		
BALSAM LAKE	2-stage 47mm prior to Jun10	3-stage 47mm Jun10-Aug18	3-stage 50mm Aug19-onwards
PENN STATE 1 AND 2	2-stage 47mm May11-July1	3-stage 47mm July2-Aug31	3-stage 50mm Sept1-onwards
CHARLESTON LAKE	2-stage 47mm undetermined	3-stage 47mm undetermined	3-stage 50mm Dec13-onwards
FERNBERG	2-stage 47mm undetermined	3-stage 47mm undetermined	3-stage 50mm Oct-onwards
GOWGANDA	2-stage 47mm till JUL5	3-stage 47mm JUL6-AUG23	3-stage 50mm AUG24-onwards
HIGH FALLS	2-stage 47mm till JUL5	3-stage 47mm JUL6-AUG30	3-stage 50mm AUG31-onwards
LONGWOODS	2-stage 47mm till AUG22		3-stage 50mm 23Aug-onwards
WELLESLEY	2-stage 47mm till AUG22		3-stage 50mm 23 Aug-onwards

ONTARIO MINISTRY OF THE ENVIRONMENT
 ACIDIC PRECIPITATION IN ONTARIO STUDY
 DAILY PRECIPITATION SITES

STATION ID	MOE REGION	STATION NAME	ELEV (M)	LATITUDE (NORTH)	LONGITUDE (WEST)	UTM GRID CO-ORDINATES (NORTHING) (EASTING)
000002-02-01-1011	SOUTHWESTERN	LONGWOODS	239	42°53'03"	81°28'50"	4747849 460756
000002-02-01-1021	SOUTHWESTERN	MELBOURNE	213	42°47'12"	81°33'27"	4737061 454401
000002-02-01-1031	SOUTHWESTERN	NORTH EASTHOPE	375	43°24'22"	80°53'45"	508434 4805705
000002-02-01-2011	SOUTHWESTERN	WELLESLEY	344	43°28'05"	80°45'33"	4812606 519481
000002-02-01-2031	SOUTHWESTERN	EGHERT	244	44°13'57"	74°46'53"	4899602 597322
000002-02-01-3011	CENTRAL	DORSET	320	45°13'25"	78°55'51"	5009657 662451
000002-02-01-3021	CENTRAL	NITHGROVE	325	45°12'03"	78°04'12"	5009221 730127
000002-02-01-3031	CENTRAL	BALSAM LAKE	259	44°37'45"	78°51'22"	4943776 670063
000002-02-01-3041	CENTRAL	RAVIN LAKE	274	44°36'40"	78°54'43"	4941655 665686
000002-02-01-4011	SOUTHEASTERN	CHARLESTON LAKE	92	44°29'50"	76°02'40"	4927414 416963
000002-02-01-4021	SOUTHEASTERN	RAILTON	152	44°22'34"	76°34'45"	4913518 533527
000002-02-01-4031	SOUTHEASTERN	KAHIM LAKE	130	44°34'30"	76°51'45"	4940930 749090
000002-02-01-4081	SOUTHEASTERN	GOLDEN LAKE	160	45°36'48"	77°12'03"	5053226 328397
000002-02-01-4101	SOUTHEASTERN	WILMER	125	44°26'23"	76°31'50"	4921437 378195
000002-02-01-5061	NORTHEASTERN	GOWANDA	343	47°39'04"	80°46'32"	5277329 516647
000002-02-01-5171	NORTHEASTERN	HIGH FALLS	215	46°22'55"	81°32'43"	5136412 458068
000002-02-01-6051	NORTHWESTERN	PERNHURG	506	47°56'51"	91°29'26"	5311349 612714
000002-02-01-6071	NORTHWESTERN	QUETICO CENTRE	420	48°24'44"	91°12'08"	5363461 633036
000002-02-01-6131	NORTHWESTERN	PAWSON	381	48°33'38"	89°38'60"	5381779 304475
000002-02-01-7011	QUEBEC	SUTTON	243	45°04'35"	72°40'35"	4993846 682898
000002-02-01-7021	PENNSYLVANIA	PENN. STATE	120	40°47'18"	77°56'47"	4519229 251390

ONTARIO MINISTRY OF THE ENVIRONMENT
 ACIDIC PRECIPITATION IN ONTARIO STUDY
 DAILY AMBIENT AIR SITES

STATION ID	MOE REGION	STATION NAME	ELFV (M)	LATITUDE (NORTH)	LONGITUDE (WEST)	UTM GRID CO-ORDINATES (NORTHING) (EASTING)
00002-21-21-1011	SOUTHWESTERN	LONGWOODS	344	43°28'03"	81°28'50"	460756
00002-21-21-2011	SOUTHWESTERN	WELLESLEY	344	43°28'03"	80°45'33"	4812606
00002-21-21-2031	SOUTHWESTERN	EGHERT	253	44°13'57"	79°46'53"	4898202
00002-21-21-3011	CENTRAL	DORSET	320	45°13'25"	78°55'51"	5009656
00002-21-21-3031	CENTRAL	BALSAM LAKE	259	44°37'45"	78°51'22"	4943776
00002-21-21-4011	SOUTHEASTERN	CHARLESTON LAKE	92	44°29'50"	76°02'40"	416963
00002-21-21-5061	NORTHEASTERN	GOWANDA	343	47°39'04"	80°46'32"	5271329
00002-21-21-5111	NORTHEASTERN	HIGH FALLS	215	46°22'55"	81°32'43"	5136412
00002-21-21-6051	NORTHWESTERN	FRANBERG	506	47°56'51"	91°29'26"	5311349
00002-21-21-7021	PENNSYLVANIA	PENN. STATE	170	40°47'18"	77°56'47"	4519229
						251390

PART III

SUMMARY STATISTICS OF PRECIPITATION CONCENTRATION BY STATION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHEM #06

PERIOD OF REPORT : JAN 3,88 TO DEC 29,88

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
:	128	122	77	125	125	125	124
MAXIMUM	72.0	87.0	7.5	7.8	0.3311	0.3400	21.30
MINIMUM	0.1	1.0	3.7	3.5	0.0000	0.0119	0.00
RANGE	71.9	86.0	3.8	4.3	0.3311	0.3281	21.30
ARITH. MEAN	5.9	25.9	4.5	4.4	0.0421	0.0681	2.73
ARITH. STD. DEV	8.8	18.7	0.7	1.1	0.0069	0.0532	2.71
GEOM. MEAN	2.7	19.0	4.5	4.8	0.0117	0.0509	1.86
1ST QUARTILE	1.1	10.8	4.1	4.2	0.0079	0.0279	0.95
2ND QUARTILE	3.3	22.0	4.3	4.5	0.0306	0.0527	2.02
3RD QUARTILE	7.2	36.8	4.6	5.1	0.0666	0.0926	3.55
VOL. WGT. MEAN	*****	25.9	*****	*****	0.0488	0.0762	3.01

# OF SAMPLES	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
:	122	116	124	116	116	115	122
MAXIMUM	2.620	5.500	1.270	0.700	0.805	0.705	1.640
MINIMUM	0.000	0.020	0.000	0.000	0.000	0.005	0.000
RANGE	2.620	5.480	1.270	0.700	0.805	0.700	1.640
ARITH. MEAN	0.640	0.575	0.222	0.062	0.053	0.085	0.405
ARITH. STD. DEV	0.493	0.707	0.243	0.083	0.099	0.115	0.391
GEOM. MEAN	0.459	0.339	0.154	0.045	0.035	0.047	0.238
1ST QUARTILE	0.255	0.160	0.060	0.015	0.015	0.020	0.121
2ND QUARTILE	0.515	0.355	0.125	0.040	0.030	0.047	0.290
3RD QUARTILE	0.930	0.730	0.310	0.070	0.055	0.105	0.530
VOL. WGT. MEAN	0.569	0.421	0.163	0.052	0.034	0.062	0.410

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AEROCHEM #11

PERIOD OF REPORT : JAN 4,88 TO DEC 29,88

	PRECIP.		CONDUCT.	PH		FREE H ⁺ LAB MG/L	TOTAL H ⁺ GRAN MG/L		SULPHATE MG/L	
	MM		UHMO/CM	FIELD	LAB					
# OF SAMPLES	: 104		91	33	93	93	93		95	
MAXIMUM	: 28.6		94.5	5.2	7.3	0.2818	0.3800		15.00	
MINIMUM	: 0.2		2.0	3.6	3.6	0.0000	0.0164		0.00	
RANGE	: 38.4		92.5	1.6	3.8	0.2818	0.3636		15.00	
ARITH. MEAN	: 7.2		31.8	4.3	4.4	0.0651	0.0953		3.33	
ARITH. STD. DEV	: 8.2		22.6	0.4	0.6	0.0582	0.0705		2.75	
GEOM. MEAN	: 3.7		23.6	4.3	4.4	0.0385	0.0750		2.50	
1ST QUARTILE	: 1.6		13.5	4.0	4.1	0.0254	0.0460		1.43	
2ND QUARTILE	: 4.4		24.5	4.2	4.3	0.0501	0.0731		2.45	
3RD QUARTILE	: 9.2		43.8	4.5	4.6	0.0812	0.1180		4.57	
VOL. WGT. MEAN	: *****		22.5	*****	*****	0.0454	0.0704		2.47	
	NITRATE		CALCIUM	CHLORIDE		MAGNESIUM	SODIUM		AMMONIUM	
	AS N MG/L		MG/L	MG/L	MG/L		AS N MG/L		AS N MG/L	
# OF SAMPLES	: 95		91	95	91	91	91		94	
MAXIMUM	: 3.460		3.520	1.530	0.790	0.295	0.690		1.720	
MINIMUM	: 0.020		0.000	0.000	0.000	0.000	0.000		0.026	
RANGE	: 3.440		3.520	1.530	0.790	0.295	0.690		1.694	
ARITH. MEAN	: 0.757		0.392	0.275	0.068	0.035	0.091		0.407	
ARITH. STD. DEV	: 0.643		0.521	0.333	0.107	0.059	0.131		0.346	
GEOM. MEAN	: 0.526		0.229	0.210	0.056	0.030	0.055		0.282	
1ST QUARTILE	: 0.310		0.060	0.050	0.010	0.012	0.03		0.100	
2ND QUARTILE	: 0.560		0.200	0.160	0.035	0.020	0.035		0.198	
3RD QUARTILE	: 1.095		0.540	0.310	0.087	0.040	0.100		0.558	
VOL. WGT. MEAN	: 0.425		0.203	0.177	0.054	0.023	0.041		0.307	

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DAWSON/DAILY/AEROCHEM./6131
PERIOD OF REPORT : DEC 31,87 TO DEC 30,88

	PRECIP.		CONDUCT.	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
	MM	UNHO/CM						
# OF SAMPLES	104	78		0	77	77	77	78
MAXIMUM	46.6	95.5		*****	7.4	0.0851	0.1220	7.55
MINIMUM	0.1	1.0		*****	4.1	0.0000	0.0153	0.00
RANGE	46.5	94.5		*****	3.3	0.0851	0.1067	7.55
ARITH. MEAN	7.4	13.2		*****	5.2	0.0148	0.0359	1.51
ARITH. STD. DEV	8.0	13.1		*****	0.7	0.0183	0.0222	1.48
GEOM. MEAN	3.6	9.4		*****	5.2	0.0060	0.0313	1.03
1ST QUANTILE	2.0	5.8		*****	4.7	0.0030	0.0217	0.63
2ND QUANTILE	5.2	10.0		*****	5.2	0.0064	0.0258	1.02
3RD QUANTILE	9.6	17.0		*****	5.5	0.0180	0.0390	1.85
VOL. WGT. MEAN	*****	10.8		*****	*****	0.0116	0.0325	1.37

	NITRATE AS N		CALCIUM	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
	MG/L	MG/L						
# OF SAMPLES	78	79		78	79	79	78	79
MAXIMUM	2.000	1.800		3.730	0.250	0.315	1.743	4.130
MINIMUM	0.000	0.000		0.000	0.000	0.000	0.000	0.000
RANGE	2.000	1.800		3.730	0.250	0.315	1.710	4.130
ARITH. MEAN	0.353	0.284		0.159	0.041	0.046	0.105	0.360
ARITH. STD. DEV	0.316	0.365		0.431	0.052	0.051	0.221	0.524
GEOM. MEAN	0.259	0.240		0.164	0.050	0.043	0.060	0.232
1ST QUANTILE	0.165	0.060		0.030	0.008	0.015	0.020	0.100
2ND QUANTILE	0.280	0.140		0.080	0.025	0.025	0.040	0.260
3RD QUANTILE	0.435	0.300		0.150	0.045	0.065	0.108	0.580
VOL. WGT. MEAN	0.282	0.283		0.093	0.040	0.046	0.071	0.311

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/AEROCHEM #08

PERIOD OF REPORT : DEC 31,87 TO DEC 31,88

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H ⁺ LAB MG/L	TOTAL H ⁺ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES	: 218	: 186	: 119	: 193	: 193	: 194	: 189
MAXIMUM	: 32.4	: 95.5	: 6.5	: 7.4	: 0.4266	: 0.5220	: 17.30
MINIMUM	: 0.0	: 2.0	: 3.4	: 3.4	: 0.0000	: 0.0116	: 0.00
RANGE	: 32.4	: 93.5	: 3.1	: 4.1	: 0.4265	: 0.5104	: 17.30
ARITH. MEAN	: 4.7	: 25.7	: 4.4	: 4.6	: 0.0494	: 0.0756	: 2.53
ARITH. STD. DEV	: 5.9	: 19.1	: 0.4	: 0.7	: 0.0517	: 0.0590	: 2.61
GEOM. MEAN	: 1.8	: 18.9	: 4.4	: 4.5	: 0.0258	: 0.0598	: 1.57
1ST QUANTILE	: 0.6	: 10.8	: 4.1	: 4.2	: 0.0158	: 0.0367	: 0.80
2ND QUANTILE	: 2.2	: 22.3	: 4.3	: 4.4	: 0.0355	: 0.0604	: 1.80
3RD QUANTILE	: 6.6	: 35.5	: 4.6	: 4.8	: 0.0684	: 0.0978	: 3.22
VOL. WGT. MEAN	: *****	: 24.7	: *****	: *****	: 0.0484	: 0.0727	: 2.34

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	: 189	: 170	: 188	: 170	: 171	: 171	: 195
MAXIMUM	: 4.200	: 2.220	: 10.860	: 0.475	: 0.885	: 1.010	: 2.150
MINIMUM	: 0.000	: 0.000	: 0.000	: 0.000	: 0.000	: 0.000	: 0.000
RANGE	: 4.200	: 2.220	: 10.860	: 0.475	: 0.885	: 1.010	: 2.150
ARITH. MEAN	: 0.630	: 0.320	: 0.300	: 0.045	: 0.043	: 0.110	: 0.335
ARITH. STD. DEV	: 0.594	: 0.443	: 0.844	: 0.066	: 0.076	: 0.154	: 0.363
GEOM. MEAN	: 0.415	: 0.209	: 0.181	: 0.042	: 0.036	: 0.067	: 0.183
1ST QUANTILE	: 0.200	: 0.060	: 0.065	: 0.015	: 0.015	: 0.025	: 0.070
2ND QUANTILE	: 0.490	: 0.140	: 0.135	: 0.020	: 0.025	: 0.050	: 0.240
3RD QUANTILE	: 0.920	: 0.320	: 0.295	: 0.050	: 0.050	: 0.130	: 0.438
VOL. WGT. MEAN	: 0.511	: 0.211	: 0.172	: 0.031	: 0.029	: 0.071	: 0.330

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : EGBERT

PERIOD OF REPORT : NOV 29,88 TO DEC 31,88

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
19	19	8	0	13	13	12	9
MAXIMUM	7.8	25.0	*****	6.3	0.0490	0.0740	3.50
MINIMUM	0.2	4.0	*****	4.3	0.0006	0.0127	0.10
RANGE	7.6	21.0	*****	1.9	0.0484	0.0613	3.40
ARITH. MEAN	1.6	11.0	*****	4.9	0.0203	0.0423	0.96
ARITH. STD. DEV	2.3	7.0	*****	0.6	0.0174	0.0208	1.09
GEOM. MEAN	0.9	9.3	*****	4.9	0.0121	0.0373	0.60
1ST QUANTILE	0.4	6.3	*****	4.4	0.0062	0.0250	0.32
2ND QUANTILE	0.6	8.3	*****	4.8	0.0126	0.0408	0.52
3RD QUANTILE	1.1	15.0	*****	5.1	0.0293	0.0592	0.70
VOL. WGT. MEAN	*****	10.4	*****	*****	0.0238	0.0430	1.08

# OF SAMPLES	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
9	9	9	9	9	9	9	9
MAXIMUM	0.620	1.580	0.780	0.320	0.050	0.805	0.140
MINIMUM	0.090	0.080	0.000	0.010	0.005	0.035	0.036
RANGE	0.530	1.500	0.780	0.310	0.045	0.770	0.104
ARITH. MEAN	0.316	0.464	0.267	0.071	0.019	0.290	0.092
ARITH. STD. DEV	0.153	0.470	0.227	0.096	0.013	0.283	0.038
GEOM. MEAN	0.278	0.301	0.200	0.042	0.016	0.178	0.084
1ST QUANTILE	0.215	0.160	0.095	0.020	0.010	0.075	0.058
2ND QUANTILE	0.305	0.230	0.235	0.032	0.015	0.150	0.100
3RD QUANTILE	0.335	0.460	0.290	0.065	0.020	0.322	0.122
VOL. WGT. MEAN	0.268	0.263	0.279	0.043	0.019	0.171	0.083

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APLOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FERNBERG/DAILY/AEROCHEN \$16

PERIOD OF REPORT : JAN 1.88 TO DEC 31.88

	PRECIP.		CONDUCT.	PH FIELD	PH LAB	FREE H ⁺ LAB MG/L	TOTAL H ⁺ GRAN MG/L	SULPHATE MG/L
	MM	UNHQ/CM						
# OF SAMPLES	: 153	112		8	108	108	108	114
MAXIMUM	: 69.2	42.5		*****	7.3	0.0661	0.0958	8.10
MINIMUM	: 0.1	0.5		*****	4.2	0.0001	0.0103	0.00
RANGE	: 69.1	42.0		*****	3.1	0.0660	0.0855	8.10
ARITH. MEAN	: 5.8	8.9		*****	5.6	0.0079	0.0262	1.11
GEOM. MEAN	: 9.9	7.8		*****	6	0.118	0.0142	1.25
ARITH. STD. DEV	: 1.7	6.4		*****	5.6	0.0022	0.0236	0.72
1ST QUARTILE	: 0.5	3.5		*****	5.1	0.0004	0.0175	0.59
2ND QUARTILE	: 2.3	7.0		*****	5.4	0.0036	0.0206	0.80
3RD QUARTILE	: 6.4	11.0		*****	6.4	0.0087	0.0292	1.25
VOL. WGT. MEAN	: *****	7.1		*****	*****	0.0076	0.0260	0.92

	NITRATE		CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM AS N
	AS N MG/L	MG/L						
# OF SAMPLES	: 114	106		114	106	106	106	120
MAXIMUM	: 1.590	1.900		0.860	0.330	0.320	1.830	2.010
MINIMUM	: 0.000	0.000		0.000	0.000	0.000	0.000	0.000
RANGE	: 1.590	1.900		0.860	0.330	0.320	1.830	2.010
ARITH. MEAN	: 0.300	0.256		0.094	0.043	0.044	0.077	0.306
GEOM. MEAN	: 0.265	0.360		0.106	0.065	0.053	0.220	0.361
ARITH. STD. DEV	: 0.211	0.216		0.116	0.054	0.058	0.046	0.157
1ST QUARTILE	: 0.115	0.040		0.040	0.010	0.012	0.015	0.066
2ND QUARTILE	: 0.240	0.140		0.070	0.020	0.025	0.030	0.188
3RD QUARTILE	: 0.400	0.260		0.120	0.055	0.050	0.065	0.395
VOL. WGT. MEAN	: 0.227	0.151		0.054	0.025	0.031	0.031	0.282

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 APTOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION

7

STATION =GOWANDA AEROCHEM SITE NO. 1

# OF SAMPLES	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD PH	LAB PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L
MAXIMUM	167.0	167	167	167	167	167	167
MINIMUM	37.0	80.00	5.250	7.64	31.40	1.88	0.90
ARITH. MEAN	0.0	1.00	3.560	3.55	0.10	0.00	0.00
ARITH. STD. DEV	4.2	17.58	4.446	4.77	2.11	0.34	0.15
GEOM. MEAN	6.2	16.78	0.397	0.67	3.62	0.41	0.16
1ST QUARTILE	0.2	11.18	4.428	4.73	1.14	0.19	0.12
2ND QUARTILE	1.3	5.00	4.140	4.32	0.50	0.03	0.04
3RD QUARTILE	5.8	13.50	4.400	4.66	1.20	0.19	0.10
VOL. WGT. MEAN	1.4	24.13	4.720	5.13	2.80	0.47	0.24
MISSING VALUES	32.0	14.23	4.493	4.77	1.53	0.25	0.12
		79	100	79	78	78	83

# OF SAMPLES	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L	FREEH+ LIM UG/L
MAXIMUM	167	167	167	167	167	167	167.00
MINIMUM	0.66	0.170	0.290	0.540	2.180	297.00	281.84
ARITH. MEAN	0.00	0.000	0.000	0.000	0.000	12.30	0.02
ARITH. STD. DEV	0.11	0.024	0.040	0.068	0.217	61.40	36.53
GEOM. MEAN	0.12	0.028	0.047	0.083	0.307	52.57	48.31
1ST QUARTILE	0.02	0.020	0.028	0.044	0.110	47.91	36.53
2ND QUARTILE	0.08	0.005	0.010	0.016	0.030	28.12	7.47
3RD QUARTILE	0.16	0.015	0.025	0.040	0.126	46.60	21.64
VOL. WGT. MEAN	0.06	0.035	0.050	0.092	0.288	77.67	47.86
MISSING VALUES	77	0.019	0.023	0.033	0.192	52.22	47.86
		83	84	83	74	79	79.00

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : HIGH FALLS

PERIOD OF REPORT : APR 14,88 TO DEC 31,88

	PRECIP.		CONDUCT.	PH FIELD	PH LAB	FREE H+		TOTAL H+	SULPHATE
	MM	MM	UMHO/CM			LAB	MG/L	GRAM	MG/L
# OF SAMPLES	114		79	60	91	91		91	82
MAXIMUM	38.2		89.0	5.8	7.4	0.2754		0.3220	14.20
MINIMUM	0.0		2.0	3.6	3.6	0.0000		0.0140	0.00
RANGE	38.2		87.0	2.3	3.8	0.2754		0.3080	14.20
ARITH. MEAN	5.0		25.1	4.3	4.7	0.0504		0.0779	2.54
ARITH. STD. DEV	7.8		21.5	0.4	0.8	0.0592		0.0686	2.53
GEOM. MEAN	1.7		16.8	4.3	4.6	0.0211		0.0576	1.74
1ST QUARTILE	0.5		8.3	4.1	4.2	0.0101		0.0319	0.77
2ND QUARTILE	2.0		20.3	4.3	4.5	0.0275		0.0550	1.80
3RD QUARTILE	5.5		31.5	4.5	4.9	0.0624		0.0893	2.84
VOL. WGT. MEAN	*****		23.9	*****	*****	0.05100		0.0766	2.31
	NITRATE		CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM		SODIUM	AMMONIUM
	AS N	MG/L				MG/L	MG/L	MG/L	AS N
# OF SAMPLES	81		84	82	84	83		84	86
MAXIMUM	2.900		1.680	0.900	0.220	0.805		0.500	1.960
MINIMUM	0.000		0.000	0.000	0.000	0.000		0.000	0.000
RANGE	2.900		1.680	0.900	0.220	0.805		0.500	1.960
ARITH. MEAN	0.569		0.230	0.172	0.039	0.083		0.077	0.475
ARITH. STD. DEV	0.594		0.288	0.170	0.044	0.138		0.073	0.448
GEOM. MEAN	0.358		0.171	0.180	0.039	0.051		0.055	0.193
1ST QUARTILE	0.175		0.060	0.065	0.010	0.025		0.030	0.090
2ND QUARTILE	0.370		0.120	0.120	0.020	0.040		0.047	0.246
3RD QUARTILE	0.730		0.370	0.230	0.050	0.077		0.105	0.520
VOL. WGT. MEAN	0.490		0.157	0.124	0.027	0.041		0.053	0.342

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/AEROCHEM

\$02

PERIOD OF REPORT : JAN 13,88 TO DEC 28,88

# OF SAMPLES	PRECIP.		CONDUCT.	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
	MM	UMHO/CM						
120	99			70	107	107	107	104
MAXIMUM	69.0	88.5		7.4	7.9	0.2692	0.3150	13.60
MINIMUM	0.1	1.5		3.0	3.6	0.0000	0.0044	0.20
RANGE	68.9	87.0		4.4	4.4	0.2691	0.3106	13.40
ARITH. MEAN	7.4	33.9		4.3	5.1	0.0456	0.0727	4.00
GEOM. MEAN	10.7	20.7		4.9	1.3	0.0548	0.0617	2.76
1ST QUANTILE	3.7	27.3		4.2	5.0	0.0077	0.0512	3.02
2ND QUANTILE	1.6	17.0		3.8	4.2	0.0007	0.0233	2.02
3RD QUANTILE	3.7	29.8		4.1	4.5	0.0285	0.0524	3.27
VOL. WGT. MEAN	9.1	46.5		4.5	6.0	0.0646	0.1025	5.48
	*****	29.8		*****	*****	0.0513	0.0776	3.41

# OF SAMPLES	NITRATE AS N		CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
	MG/L	MG/L						
104	93			106	93	94	94	107
MAXIMUM	4.490	5.120		3.850	0.985	1.040	1.510	3.400
MINIMUM	0.000	0.000		0.000	0.000	0.010	0.000	0.046
RANGE	4.490	5.120		3.850	0.985	1.030	1.510	3.354
ARITH. MEAN	0.862	0.843		0.436	0.152	0.143	0.156	0.716
GEOM. MEAN	0.709	0.897		0.540	0.180	0.175	0.204	0.660
1ST QUANTILE	0.627	0.531		0.315	0.098	0.086	0.098	0.496
2ND QUANTILE	0.370	0.240		0.150	0.035	0.042	0.047	0.266
3RD QUANTILE	0.630	0.570		0.280	0.092	0.075	0.095	0.500
VOL. WGT. MEAN	1.230	0.950		0.460	0.163	0.165	0.170	0.883
	0.573	0.437		0.234	0.081	0.077	0.092	0.501

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY/AEROCHEN #01

PERIOD OF REPORT : JAN 3,88 TO DEC 30,88

	PRECIP.		CONDUCT.	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
	MM	UHMO/CM						
# OF SAMPLES	129	101		69	112	11.7	11	109
MAXIMUM	40.2	86.5		6.7	8.1	0.2884	0.4180	17.50
MINIMUM	0.1	2.0		3.1	2.5	0.0000	0.0000	0.00
RANGE	40.1	84.5		3.6	4.6	0.2884	0.4180	17.50
ARITH. MEAN	5.1	34.8		4.3	4.9	0.0544	0.0827	4.29
ARITH. STD. DEV	6.9	20.2		0.8	1.2	0.0568	0.0671	5.06
GEOM. MEAN	2.3	28.6		4.2	4.8	0.0128	0.0627	3.34
1ST QUARTILE	1.0	18.0		3.7	4.1	0.0079	0.0296	2.07
2ND QUARTILE	2.2	29.8		4.1	4.4	0.0442	0.0703	3.52
3RD QUARTILE	6.8	48.5		4.5	5.1	0.0776	0.1180	5.88
VOL. WGT. MEAN	*****	30.9		*****	*****	0.0570	0.0837	3.53

	NITRATE		CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM
	AS N MG/L	MG/L						AS N MG/L
# OF SAMPLES	109	100		109	100	99	99	111
MAXIMUM	3.130	4.360		1.500	0.920	0.885	0.875	3.250
MINIMUM	0.000	0.000		0.000	0.000	0.000	0.005	0.000
RANGE	3.130	4.360		1.500	0.920	0.885	0.870	3.250
ARITH. MEAN	0.884	0.745		0.356	0.130	0.088	0.130	0.752
ARITH. STD. DEV	0.631	0.771		0.296	0.149	0.105	0.157	0.617
GEOM. MEAN	0.664	0.430		0.155	0.086	0.063	0.077	0.535
1ST QUARTILE	0.305	0.160		0.155	0.030	0.025	0.042	0.506
2ND QUARTILE	0.745	0.400		0.265	0.000	0.047	0.074	0.594
3RD QUARTILE	1.270	1.130		0.465	0.175	0.118	0.135	0.983
VOL. WGT. MEAN	0.614	0.444		0.206	0.077	0.054	0.075	0.533

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NITHGROVE/DAILY/AEROCHEM #07

PERIOD OF REPORT : DEC 31,87 TO DEC 31,88

	PRECIP.		CONDUCT.	PH FIELD	PH LAB	FREE H ⁺		TOTAL H ⁺ GRAN	SULPHATE
	MM	UHHO/CM				LAB	MG/L		
# OF SAMPLES	: 135	110		83	120	120	120	120	115
MAXIMUM	: 30.4	93.0		7.1	7.5	0.0318	0.3560	0.3560	11.50
MINIMUM	: 0.0	2.0		3.6	3.6	0.0000	0.0154	0.0154	0.10
RANGE	: 30.4	91.0		3.5	4.0	0.2818	0.3406	0.3406	11.20
ARITH. MEAN	: 5.1	24.1		4.6	4.8	0.0417	0.0677	0.0677	2.39
ARITH. STD. DEV	: 6.0	18.5		0.7	0.9	0.0422	0.0491	0.0491	2.03
GEOM. MEAN	: 2.3	17.2		4.5	4.7	0.0169	0.0591	0.0591	1.66
1ST QUARTILE	: 0.9	9.0		4.2	4.2	0.0106	0.0308	0.0308	0.85
2ND QUARTILE	: 2.8	19.5		4.3	4.5	0.0316	0.0544	0.0544	1.08
3RD QUARTILE	: 7.0	34.0		4.8	5.0	0.0624	0.0924	0.0924	3.27
VOL. WGT. MEAN	: *****	24.0		*****	*****	0.0442	0.0711	0.0711	2.46

	NITRATE		CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM		SODIUM	AMMONIUM
	AS N	MG/L				MG/L	MG/L		AS N
# OF SAMPLES	: 113	108		116	107	108	108	108	123
MAXIMUM	: 2.500	2.340		1.090	0.275	0.310	0.670	0.670	3.700
MINIMUM	: 0.030	0.000		0.000	0.000	0.010	0.005	0.005	0.006
RANGE	: 2.470	2.340		1.090	0.275	0.300	0.665	0.665	3.694
ARITH. MEAN	: 0.572	0.304		0.204	0.040	0.057	0.080	0.080	0.489
ARITH. STD. DEV	: 0.490	0.430		0.198	0.054	0.052	0.099	0.099	0.573
GEOM. MEAN	: 0.374	0.184		0.170	0.045	0.040	0.048	0.048	0.268
1ST QUARTILE	: 0.195	0.060		0.070	0.010	0.020	0.025	0.025	0.115
2ND QUARTILE	: 0.465	0.160		0.140	0.020	0.040	0.040	0.040	0.115
3RD QUARTILE	: 0.865	0.340		0.260	0.045	0.070	0.113	0.113	0.414
VOL. WGT. MEAN	: 0.462	0.208		0.147	0.029	0.039	0.050	0.050	0.414

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/AEROCHEM #03

PERIOD OF REPORT : DEC 31,87 TO DEC 30,88

	PRECIP.		CONDUCT.	PH FIELD	PH LAB	FREE H+		TOTAL H+	SULPHATE
	MM	UMHO/CM				LAB	MG/L		
# OF SAMPLES	173	132		81	148	148	150		142
MAXIMUM	38.4	82.0		6.3	7.8	0.4074	0.4010		15.00
MINIMUM	0.1	2.0		2.0	3.4	0.0000	0.0091		0.25
RANGE	38.3	80.0		3.3	4.4	0.4074	0.3919		14.75
ARITH. MEAN	5.2	24.9		4.2	5.2	0.0377	0.0620		3.79
ARITH. STD. DEV	6.9	17.0		0.6	1.3	0.0561	0.0602		2.84
GEOM. MEAN	2.5	19.4		4.2	5.1	0.0057	0.0433		2.30
1ST QUANTILE	0.9	12.8		3.8	4.3	0.0002	0.0201		1.47
2ND QUANTILE	2.3	20.5		4.1	4.6	0.0232	0.0494		2.45
3RD QUANTILE	5.8	34.3		4.4	6.7	0.0608	0.0762		4.42
VOL. WGT. MEAN	*****	24.2		*****	*****	0.0424	0.0673		2.90
	NITRATE		CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM		SODIUM	AMMONIUM AS N
	AS N MG/L	MG/L				MG/L	MG/L		
# OF SAMPLES	142	138		142	138	137	138		151
MAXIMUM	2.750	4.180		1.410	0.815	1.100	0.750		7.120
MINIMUM	0.010	0.000		0.000	0.000	0.000	0.005		0.000
RANGE	2.740	4.180		1.410	0.815	1.100	0.745		7.120
ARITH. MEAN	0.648	0.643		0.235	0.129	0.052	0.090		0.606
ARITH. STD. DEV	0.500	0.723		0.210	0.163	0.099	0.109		0.507
GEOM. MEAN	0.448	0.374		0.202	0.078	0.056	0.056		0.434
1ST QUANTILE	0.285	0.180		0.090	0.030	0.015	0.032		0.228
2ND QUANTILE	0.535	0.410		0.170	0.070	0.030	0.050		0.410
3RD QUANTILE	0.890	0.840		0.335	0.152	0.057	0.110		0.808
VOL. WGT. MEAN	0.512	0.392		0.197	0.080	0.036	0.072		0.493

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PENN. STATE

PERIOD OF REPORT : MAY 16,88 TO DEC 28,88

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ MG/L	TOTAL H+ MG/L	SULPHATE MG/L
50	50	35	0	40	40	40	36
MAXIMUM	30.4	94.5	*****	5.6	0.2089	0.2280	7.85
MINIMUM	0.1	3.0	*****	3.7	0.0027	0.0129	0.50
RANGE	30.3	91.5	*****	1.9	0.2062	0.2151	7.35
ARITH. MEAN	7.1	28.8	*****	4.4	0.0587	0.0848	2.79
ARITH. STD. DEV	8.9	18.8	*****	0.4	0.0416	0.0497	1.89
GEOM. MEAN	2.6	23.4	*****	4.3	0.0431	0.0711	2.27
1ST QUARTILE	0.6	16.0	*****	4.1	0.0363	0.0549	1.52
2ND QUARTILE	3.0	24.8	*****	4.3	0.0562	0.0793	2.50
3RD QUARTILE	8.8	38.5	*****	4.4	0.0759	0.1055	3.38
VOL. WGT. MEAN	*****	24.5	*****	*****	0.0514	0.0728	2.38

# OF SAMPLES	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
36	36	37	36	37	37	37	40
MAXIMUM	1.280	0.880	1.170	0.170	0.145	1.340	1.440
MINIMUM	0.070	0.000	0.000	0.000	0.000	0.005	0.020
RANGE	1.210	0.880	1.170	0.170	0.145	1.335	1.420
ARITH. MEAN	0.485	0.192	0.206	0.034	0.033	0.120	0.238
ARITH. STD. DEV	0.334	0.217	0.226	0.042	0.039	0.254	0.281
GEOM. MEAN	0.377	0.143	0.164	0.047	0.034	0.037	0.155
1ST QUARTILE	0.215	0.040	0.060	0.008	0.010	0.015	0.085
2ND QUARTILE	0.400	0.100	0.130	0.015	0.015	0.022	0.155
3RD QUARTILE	0.640	0.260	0.250	0.035	0.035	0.095	0.266
VOL. WGT. MEAN	0.337	0.092	0.109	0.016	0.016	0.037	0.189

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/DAILY/AEROCHEM \$14

PERIOD OF REPORT : JAN 7-88 TO DEC 28-88

	PRECIP.		CONDUCT.	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
	MM	MM	UMHO/CM					
# OF SAMPLES	: 84		68	0	69	69	69	68
MAXIMUM	: 140.0		62.0	*****	7.2	0.0871	0.1230	8.55
MINIMUM	: 0.1		1.0	*****	4.1	0.0001	0.0154	0.10
RANGE	: 139.9		61.0	*****	3.2	0.0870	0.1076	8.45
ARITH. MEAN	: 10.7		11.7	*****	5.3	0.0122	0.0333	1.43
ARITH. STD. DEV	: 16.5		11.0	*****	0.7	0.0167	0.0202	1
GEOM. MEAN	: 5.6		8.5	*****	5.3	0.0065	0.0295	0.99
1ST QUARTILE	: 3.7		6.0	*****	4.8	0.0014	0.0207	0.97
2ND QUARTILE	: 6.6		8.0	*****	5.2	0.0060	0.0268	0.95
3RD QUARTILE	: 12.3		14.5	*****	5.8	0.0150	0.0340	1.77
VOL. WGT. MEAN	: *****		7.6	*****	*****	0.0088	0.0288	0.94
	NITRATE AS N		CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM AS N
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
# OF SAMPLES	: 68		68	68	68	68	68	69
MAXIMUM	: 2.210		3.020	0.550	0.495	0.325	0.690	1.690
MINIMUM	: 0.020		0.000	0.000	0.000	0.000	0.000	0.022
RANGE	: 2.190		3.020	0.550	0.495	0.325	0.690	1.668
ARITH. MEAN	: 0.363		0.310	0.102	0.047	0.049	0.072	0.377
ARITH. STD. DEV	: 0.305		0.518	0.106	0.080	0.061	0.122	0.571
GEOM. MEAN	: 0.245		0.187	0.118	0.044	0.048	0.042	0.230
1ST QUARTILE	: 0.175		0.070	0.040	0.010	0.015	0.015	0.108
2ND QUARTILE	: 0.245		0.140	0.060	0.025	0.030	0.025	0.278
3RD QUARTILE	: 0.425		0.320	0.125	0.042	0.057	0.062	0.517
VOL. WGT. MEAN	: 0.222		0.169	0.057	0.025	0.031	0.039	0.354

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAILTON/DAILY/AEROCHEM #10

PERIOD OF REPORT : JAN 8,88 TO DEC 29,88

	PRECIP. mm	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H ⁺ LAB MG/L	TOTAL H ⁺ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES	60	48	21	51	51	51	53
MAXIMUM	28.2	90.0	7.0	7.5	0.2884	0.5630	14.75
MINIMUM	0.2	3.0	3.7	3.5	0.0000	0.0000	0.40
RANGE	28.0	87.0	3.3	3.9	0.2884	0.3630	13.85
ARITH. MEAN	6.4	34.6	4.5	4.5	0.0683	0.1017	4.46
ARITH. STD. DEV	21.1	21.1	0.9	0.9	0.0618	0.0811	3.28
GEOM. MEAN	3.7	27.8	4.5	4.4	0.0311	0.0828	3.27
1ST QUANTILE	2.0	19.3	4.1	4.0	0.0343	0.0516	1.93
2ND QUANTILE	4.2	27.3	4.2	4.3	0.0513	0.0827	3.21
3RD QUANTILE	8.0	47.8	4.4	4.4	0.0873	0.1150	6.57
VOL. WGT. MEAN	*****	30.0	*****	*****	0.0565	0.0868	3.53

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	53	50	53	50	51	51	50
MAXIMUM	3.220	4.500	2.320	0.865	0.420	1.710	1.690
MINIMUM	0.000	0.000	0.000	0.000	0.000	0.000	0.084
RANGE	3.220	4.500	2.320	0.865	0.420	1.710	1.606
ARITH. MEAN	0.901	0.743	0.528	0.103	0.077	0.126	0.632
ARITH. STD. DEV	0.728	0.857	0.428	0.145	0.091	0.256	0.455
GEOM. MEAN	0.667	0.489	0.192	0.062	0.056	0.078	0.474
1ST QUANTILE	0.330	0.210	0.090	0.025	0.017	0.030	0.250
2ND QUANTILE	0.715	0.480	0.145	0.065	0.045	0.095	0.453
3RD QUANTILE	1.225	0.870	0.380	0.103	0.080	0.105	0.983
VOL. WGT. MEAN	0.652	0.452	0.206	0.050	0.048	0.087	0.488

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY/AEROCHEM #05

PERIOD OF REPORT : DEC 31.87 TO DEC 31.88

	PRECIP.		CONDUCT.		PH FIELD	PH LAB	FREE H ⁺		TOTAL H ⁺ GRAM	SULPHATE MG/L
	MM		UMHO/CM				LAB	MG/L		
# OF SAMPLES	167		132		71	137	137		137	136
MAXIMUM	40.0		90.5		6.9	7.8	0.4169		0.5140	12.40
MINIMUM	0.0		0.5		3.8	3.4	0.0000		0.0117	0.00
RANGE	40.0		90.0		3.1	4.4	0.4169		0.5023	12.40
ARITH. MEAN	4.6		26.2		4.5	4.9	0.0668		0.0724	2.62
ARITH. STD. DEV	6.0		20.2		0.6	1.0	0.0600		0.0710	2.28
GEOM. MEAN	2.1		18.4		4.5	4.8	0.0132		0.0521	1.84
1ST QUARTILE	0.8		10.0		4.2	4.2	0.0048		0.0247	1.00
2ND QUARTILE	2.0		22.0		4.4	4.5	0.0279		0.0520	1.95
3RD QUARTILE	6.1		36.8		4.7	5.3	0.0603		0.0927	5.42
VOL. WGT. MEAN	*****		28.1		*****	*****	0.0469		0.0747	2.88
	NITRATE AS N		CALCIUM		CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM		SODIUM MG/L	AMMONIUM AS N MG/L
	MG/L		MG/L				MG/L	MG/L		
# OF SAMPLES	134		124		137	124	123		124	140
MAXIMUM	2.630		3.440		1.720	0.430	0.445		1.310	1.980
MINIMUM	0.020		0.000		0.000	0.000	0.000		0.000	0.004
RANGE	2.610		3.440		1.720	0.430	0.445		1.310	1.976
ARITH. MEAN	0.615		0.523		0.221	0.057	0.046		0.085	0.435
ARITH. STD. DEV	0.395		0.674		0.264	0.074	0.064		0.150	0.458
GEOM. MEAN	0.205		0.312		0.157	0.042	0.034		0.054	0.229
1ST QUARTILE	0.090		0.120		0.065	0.010	0.010		0.020	0.138
2ND QUARTILE	0.490		0.260		0.140	0.035	0.025		0.057	0.256
3RD QUARTILE	0.855		0.620		0.275	0.067	0.050		0.100	0.583
VOL. WGT. MEAN	0.518		0.352		0.132	0.044	0.028		0.045	0.435

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SUTTON/DAILY/AEROCHEM./7011
PERIOD OF REPORT : DEC 31,87 TO APR 26,88

	PRECIP.		CONDUCT.		PH FIELD	PH LAB	FREE H ⁺		TOTAL H ⁺		SULPHATE	
	MM	MM	UMHO/CM	UMHO/CM			LAB	MG/L	GRAM	MG/L	MG/L	MG/L
# OF SAMPLES	:	76	40	40	0	36	36	36	37	41		
MAXIMUM	:	20.2	91.0	91.0	*****	7.2	0.2512	0.2512	0.3070	9.10		
MINIMUM	:	0.1	3.0	3.0	*****	3.6	0.0001	0.0001	0.0169	0.10		
RANGE	:	20.1	88.0	88.0	*****	3.6	0.2511	0.2511	0.2921	9.00		
ARITH. MEAN	:	3.4	26.8	26.8	*****	4.6	0.0528	0.0528	0.0792	2.04		
ARITH. STD. DEV	:	4.7	20.2	20.2	*****	0.8	0.0484	0.0484	0.0565	1.97		
GEOM. MEAN	:	1.1	19.7	19.7	*****	4.5	0.0270	0.0270	0.0636	1.33		
1ST QUARTILE	:	0.2	11.5	11.5	*****	4.2	0.0272	0.0272	0.0441	0.72		
2ND QUARTILE	:	1.3	23.0	23.0	*****	4.4	0.0380	0.0380	0.0657	1.68		
3RD QUARTILE	:	4.9	38.8	38.8	*****	4.6	0.0661	0.0661	0.1050	2.40		
VOL. WGT. MEAN	:	*****	23.3	23.3	*****	*****	0.0666	0.0666	0.0682	1.71		
	NITRATE		CALCIUM		CHLORIDE	MAGNESIUM	POTASSIUM		SODIUM		AMMONIUM	
	AS N	MG/L	MG/L	MG/L			MG/L	MG/L	MG/L	AS N	MG/L	MG/L
# OF SAMPLES	:	41	29	41		29	29	29	29	40		
MAXIMUM	:	3.100	1.900	1.480		0.365	0.100	0.100	0.500	2.000		
MINIMUM	:	0.020	0.000	0.020		0.000	0.000	0.000	0.000	0.000		
RANGE	:	3.080	1.900	1.460		0.365	0.100	0.100	0.500	2.000		
ARITH. MEAN	:	0.758	0.254	0.219		0.031	0.018	0.018	0.084	0.304		
ARITH. STD. DEV	:	0.724	0.404	0.278		0.070	0.023	0.023	0.111	0.397		
GEOM. MEAN	:	0.461	0.189	0.124		0.083	0.025	0.025	0.068	0.158		
1ST QUARTILE	:	0.270	0.030	0.055		0.000	0.005	0.005	0.025	0.042		
2ND QUARTILE	:	0.485	0.120	0.140		0.010	0.010	0.010	0.040	0.210		
3RD QUARTILE	:	0.960	0.250	0.225		0.077	0.017	0.017	0.090	0.355		
VOL. WGT. MEAN	:	0.510	0.132	0.118		0.014	0.012	0.012	0.062	0.244		

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
API05 - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WELLESLEY/DAILY/AEROCHEM #04

PERIOD OF REPORT : JAN 1,88 TO DEC 30,88

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H ⁺ LAB MG/L	TOTAL H ⁺ GRAN MG/L	SULPHATE MG/L
161	122	73	135	135	135	135	131
MAXIMUM	84.9	6.6	7.6	7.6	0.4169	0.4040	18.00
MINIMUM	0.1	3.1	3.4	3.4	0.0000	0.0081	0.20
RANGE	44.8	81.0	3.5	4.3	0.4168	0.3959	17.80
ARITH. MEAN	5.1	28.7	4.4	5.2	0.0610	0.0660	3.69
ARITH. STD. DEV	6.7	19.3	0.8	1.2	0.0615	0.0630	3.04
GEOM. MEAN	2.5	22.8	4.3	5.1	0.0065	0.0468	2.68
1ST QUANTILE	1.1	13.0	3.8	4.2	0.0003	0.0227	1.65
2ND QUANTILE	2.9	23.8	4.2	4.7	0.0204	0.0457	2.57
3RD QUANTILE	6.0	37.0	4.6	6.4	0.0617	0.0915	4.92
VOL. WGT. MEAN	*****	26.6	*****	*****	0.0432	0.0675	3.18

# OF SAMPLES	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
131	115	130	115	115	114	115	133
MAXIMUM	3.200	4.300	1.140	0.910	0.520	0.580	3.900
MINIMUM	0.000	0.000	0.000	0.000	0.000	0.000	0.030
RANGE	3.200	4.300	1.140	0.910	0.520	0.580	3.870
ARITH. MEAN	0.689	0.671	0.246	0.130	0.046	0.083	0.807
ARITH. STD. DEV	0.576	0.772	0.231	0.171	0.065	0.095	0.697
GEOM. MEAN	0.468	0.388	0.188	0.077	0.041	0.061	0.579
1ST QUANTILE	0.285	0.150	0.080	0.025	0.015	0.027	0.330
2ND QUANTILE	0.555	0.350	0.180	0.067	0.025	0.045	0.560
3RD QUANTILE	0.895	0.900	0.330	0.197	0.052	0.110	1.095
VOL. WGT. MEAN	0.508	0.427	0.185	0.087	0.031	0.063	0.574

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF CONCENTRATION

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STATION =WILMER AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	CONDUCT UMHO/CM	FIELD PH	LAB PH	SULFATE MG/L	NITRATE MG/L	CALCIUM MG/L
# OF SAMPLES	180.0	180	180	180	180	180	180
MAXIMUM	32.4	94.00	5.390	7.64	16.50	3.45	4.42
MINIMUM	0.2	2.00	3.900	3.59	0.20	0.05	0.00
ARITH. MEAN	4.3	30.56	4.432	4.54	3.04	0.73	0.45
ARITH. STD. DEV	5.4	22.02	0.399	0.73	2.67	0.61	0.64
GEOM. MEAN	4.3	22.23	4.416	4.49	2.03	0.51	0.25
1ST QUARTILE	0.4	12.25	4.095	4.11	1.00	0.29	0.10
2ND QUARTILE	2.2	26.50	4.450	4.31	2.35	0.56	0.24
3RD QUARTILE	6.4	42.00	4.640	4.76	4.04	1.01	0.57
VOL. WGT. MEAN	0.4	25.86	4.426	4.51	2.47	0.55	0.28
MISSING VALUES	2.0	60	167	58	56	57	60

	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM MG/L	ACIDITY GRAN UG/L	FREEH+ LAB UG/L
# OF SAMPLES	180	180	180	180	180	180	180.00
MAXIMUM	1.69	1.070	0.340	0.685	1.810	335.00	257.04
MINIMUM	0.00	0.000	0.000	0.000	0.000	15.30	0.02
ARITH. MEAN	0.26	0.066	0.042	0.102	0.420	87.03	57.62
ARITH. STD. DEV	0.32	0.120	0.052	0.134	0.403	64.85	52.78
GEOM. MEAN	0.16	0.037	0.031	0.057	0.281	67.50	57.62
1ST QUARTILE	0.05	0.010	0.015	0.025	0.148	40.87	17.28
2ND QUARTILE	0.14	0.035	0.027	0.045	0.300	74.30	48.98
3RD QUARTILE	0.31	0.074	0.045	0.110	0.479	110.25	78.08
VOL. WGT. MEAN	0.16	0.040	0.026	0.067	0.314	74.66	.
MISSING VALUES	55	60	60	60	56	58	58.00

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PART IV

SUMMARY STATISTICS OF PRECIPITATION CONCENTRATION BY REGION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CENTRAL REGION/DAILY PRECIPITATION

PERIOD OF REPORT : DEC 31,87 TO DEC 31,88

	# OF SAMPLES	PRECIP.		CONDUCT.	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
		MM	UNHO/CM						
	648	550	350	575	575	575	575	575	564
MAXIMUM	72.0	95.5	7.5	7.8	7.8	7.8	7.8	0.5220	21.30
MINIMUM	0.0	0.5	3.4	3.4	3.4	3.4	3.4	0.0116	0.00
RANGE	72.0	95.0	4.1	4.4	4.4	4.4	4.4	0.5104	21.30
ARITH. MEAN	5.0	25.6	4.5	4.8	4.8	4.8	4.8	0.0716	2.57
ARITH. STD. DEV	6.6	19.1	0.6	0.9	0.9	0.9	0.9	0.0590	2.44
GEOM. MEAN	2.1	18.5	4.5	4.7	4.7	4.7	4.7	0.0547	1.71
1ST QUARTILE	0.8	10.0	4.2	4.2	4.2	4.2	4.2	0.0312	0.90
2ND QUARTILE	2.4	22.0	4.3	4.5	4.5	4.5	4.5	0.0563	1.90
3RD QUARTILE	6.6	36.0	4.6	5.0	5.0	5.0	5.0	0.0950	3.35
VOL. WGT. MEAN	*****	25.6	*****	*****	*****	*****	*****	0.0737	2.64

	# OF SAMPLES	NITRATE		CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM AS N
		AS N	MG/L						
	558	518	565	517	517	517	518	518	580
MAXIMUM	4.200	5.500	10.860	0.700	0.700	0.700	0.885	1.310	3.700
MINIMUM	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	4.200	5.500	10.860	0.700	0.700	0.700	0.885	1.310	3.700
ARITH. MEAN	0.617	0.422	0.244	0.051	0.051	0.051	0.049	0.135	0.407
ARITH. STD. DEV	0.535	0.579	0.525	0.070	0.070	0.070	0.075	0.055	0.446
GEOM. MEAN	0.411	0.250	0.166	0.043	0.043	0.043	0.036	0.021	0.221
1ST QUARTILE	0.205	0.080	0.070	0.010	0.010	0.010	0.015	0.025	0.101
2ND QUARTILE	0.490	0.200	0.130	0.025	0.025	0.025	0.030	0.045	0.270
3RD QUARTILE	0.915	0.530	0.285	0.060	0.060	0.060	0.055	0.110	0.563
VOL. WGT. MEAN	0.520	0.292	0.156	0.038	0.038	0.038	0.032	0.058	0.391

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHEASTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : APR 11.88 TO DEC 31.88

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES	: 262	167	127	179	179	179	171
MAXIMUM	: 140.0	89.0	5.8	7.6	0.2818	0.3720	31.40
MINIMUM	: 0.0	1.0	3.6	3.6	0.0000	0.0123	0.00
RANGE	: 140.0	88.0	2.3	4.1	0.2818	0.3097	31.40
ARITH. MEAN	: 5.8	21.1	4.4	4.7	0.0436	0.0698	2.32
ARITH. STD. DEV	: 15.1	19.5	0.4	0.7	0.0544	0.0617	3.14
GEOM. MEAN	: 1.2	13.6	4.4	4.7	0.0189	0.0526	1.39
1ST QUARTILE	: 0.3	5.8	4.1	4.5	0.0091	0.0294	0.60
2ND QUARTILE	: 1.4	15.3	4.3	4.6	0.0254	0.0510	1.50
3RD QUARTILE	: 5.4	28.8	4.6	5.0	0.0531	0.0808	2.85
VOL. WGT. MEAN	: *****	16.6	*****	*****	0.0331	0.0579	1.69

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	: 170	168	172	168	166	168	179
MAXIMUM	: 2.900	1.680	0.900	0.220	0.805	0.540	2.180
MINIMUM	: 0.000	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	: 2.900	1.680	0.900	0.220	0.805	0.540	2.180
ARITH. MEAN	: 0.450	0.192	0.141	0.031	0.061	0.072	0.293
ARITH. STD. DEV	: 0.516	0.235	0.147	0.038	0.105	0.078	0.377
GEOM. MEAN	: 0.282	0.163	0.169	0.041	0.044	0.054	0.152
1ST QUARTILE	: 0.085	0.040	0.040	0.010	0.017	0.025	0.036
2ND QUARTILE	: 0.300	0.120	0.100	0.020	0.035	0.045	0.160
3RD QUARTILE	: 0.595	0.280	0.185	0.040	0.055	0.095	0.396
VOL. WGT. MEAN	: 0.323	0.127	0.076	0.021	0.029	0.041	0.230

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1,88 TO DEC 30,88

# OF SAMPLES	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
:	361	258	0	254	254	254	260
MAXIMUM	: 140.0	95.5	*****	7.4	0.0871	0.1230	0.55
MINIMUM	: 0.1	0.5	*****	4.1	0.0000	0.0103	0.00
RANGE	: 139.9	95.0	*****	3.3	0.0871	0.1127	0.55
ARITH. MEAN	: 7.5	10.9	*****	5.4	0.0111	0.0311	1.31
ARITH. STD. DEV	: 11.5	10.6	*****	0.8	0.0156	0.0190	1.40
GEOM. MEAN	: 2.9	7.8	*****	5.4	0.0036	0.0273	0.87
1ST QUARTILE	: 1.1	5.0	*****	4.8	0.0009	0.0196	0.45
2ND QUARTILE	: 4.3	8.0	*****	5.3	0.0054	0.0241	0.90
3RD QUARTILE	: 9.3	13.3	*****	6.0	0.0141	0.0351	1.63
VOL. WGT. MEAN	: *****	8.4	*****	*****	0.0092	0.0288	1.06

# OF SAMPLES	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
:	260	253	260	253	253	252	268
MAXIMUM	: 2,210	3,020	3,730	0.495	0.325	1.830	4,130
MINIMUM	: 0.000	0.000	0.000	0.000	0.000	0.000	0.000
RANGE	: 2,210	3,020	3,730	0.495	0.325	1.830	4,130
ARITH. MEAN	: 0.332	0.279	0.115	0.043	0.046	0.084	0.340
ARITH. STD. DEV	: 0.316	0.409	0.253	0.065	0.055	0.198	0.417
GEOM. MEAN	: 0.233	0.215	0.129	0.050	0.042	0.049	0.196
1ST QUARTILE	: 0.145	0.060	0.040	0.010	0.015	0.015	0.090
2ND QUARTILE	: 0.250	0.140	0.070	0.025	0.030	0.030	0.241
3RD QUARTILE	: 0.415	0.300	0.130	0.045	0.065	0.065	0.423
VOL. WGT. MEAN	: 0.241	0.196	0.066	0.029	0.036	0.045	0.280

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHEASTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 4,88 TO DEC 31,88

# OF SAMPLES	PRECIP.		CONDUCT.	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
	MM	MM	UMHO/CM					
MAXIMUM	342	259		67	266	266	266	272
MINIMUM	113.8	94.5		7.0	7.6	0.2884	0.3800	16.50
RANGE	0.2	2.0		3.6	3.5	0.0000	0.0000	0.00
ARITH. MEAN	113.6	92.5		3.4	4.1	0.2884	0.3800	16.50
GEOM. MEAN	5.8	31.7		4.4	4.5	0.0623	0.0927	3.42
ARITH. STD. DEV	8.8	22.0		0.6	0.7	0.0565	0.0701	2.86
GEOM. MEAN	2.6	23.7		4.4	4.4	0.0323	0.0728	2.33
1ST QUANTILE	0.8	15.8		4.1	4.1	0.0232	0.0432	1.40
2ND QUANTILE	3.0	26.3		4.3	4.3	0.0495	0.0750	2.55
3RD QUANTILE	7.4	44.8		4.6	4.6	0.0813	0.1166	4.72
VOL. WGT. MEAN	*****	24.9		*****	*****	0.0480	0.0744	2.62
# OF SAMPLES	NITRATE		CALCIUM	CHLORIDE	MAGNESIUM	POTASSIUM	SODIUM	AMMONIUM AS N MG/L
	AS N MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
MAXIMUM	271	261		273	261	262	262	268
MINIMUM	3.460	4.500		2.320	1.070	0.420	1.710	1.810
RANGE	0.000	0.000		0.000	0.000	0.000	0.000	0.000
ARITH. MEAN	3.460	4.500		2.320	1.070	0.420	1.710	1.810
GEOM. MEAN	0.774	0.487		0.277	0.074	0.047	0.103	0.455
ARITH. STD. DEV	0.649	0.659		0.349	0.120	0.060	0.164	0.402
GEOM. MEAN	0.542	0.280		0.197	0.054	0.038	0.063	0.312
1ST QUANTILE	0.320	0.100		0.060	0.015	0.015	0.025	0.190
2ND QUANTILE	0.590	0.260		0.150	0.040	0.027	0.065	0.320
3RD QUANTILE	1.115	0.580		0.320	0.092	0.050	0.108	0.565
VOL. WGT. MEAN	0.507	0.268		0.170	0.037	0.027	0.057	0.334

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF PRECIPITATION CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 13,88 TO DEC 31,88

	PRECIP. MM	CONDUCT. UMHO/CM	PH FIELD	PH LAB	FREE H+ LAB MG/L	TOTAL H+ GRAN MG/L	SULPHATE MG/L
# OF SAMPLES	: 502	: 462	: 293	: 515	: 515	: 516	: 495
MAXIMUM	: 69.0	: 88.5	: 7.4	: 8.1	: 0.4169	: 0.4180	: 18.00
MINIMUM	: 0.1	: 1.5	: 3.0	: 3.4	: 0.0000	: 0.0000	: 0.00
RANGE	: 68.9	: 87.0	: 4.4	: 4.7	: 0.4169	: 0.4180	: 18.00
ARITH. MEAN	: 5.5	: 29.8	: 4.3	: 5.1	: 0.0434	: 0.0693	: 3.72
ARITH. STD. DEV	: 7.8	: 19.6	: 0.8	: 1.2	: 0.0571	: 0.0626	: 2.95
GEOM. MEAN	: 2.6	: 23.4	: 4.2	: 5.0	: 0.0076	: 0.0494	: 2.69
1ST QUARTILE	: 1.0	: 15.0	: 3.8	: 4.2	: 0.0010	: 0.0230	: 1.70
2ND QUARTILE	: 2.6	: 24.3	: 4.1	: 4.6	: 0.0279	: 0.0515	: 2.85
3RD QUARTILE	: 6.6	: 40.5	: 4.5	: 6.0	: 0.0631	: 0.0925	: 5.10
VOL. WGT. MEAN	: *****	: 27.5	: *****	: *****	: 0.0477	: 0.0731	: 3.21

	NITRATE AS N MG/L	CALCIUM MG/L	CHLORIDE MG/L	MAGNESIUM MG/L	POTASSIUM MG/L	SODIUM MG/L	AMMONIUM AS N MG/L
# OF SAMPLES	: 495	: 455	: 496	: 455	: 453	: 455	: 510
MAXIMUM	: 4.490	: 5.120	: 3.850	: 0.985	: 1.100	: 1.510	: 3.900
MINIMUM	: 0.000	: 0.000	: 0.000	: 0.000	: 0.000	: 0.000	: 0.000
RANGE	: 4.490	: 5.120	: 3.850	: 0.985	: 1.100	: 1.510	: 3.900
ARITH. MEAN	: 0.750	: 0.710	: 0.308	: 0.135	: 0.077	: 0.114	: 0.705
ARITH. STD. DEV	: 0.604	: 0.782	: 0.339	: 0.165	: 0.119	: 0.150	: 0.622
GEOM. MEAN	: 0.532	: 0.416	: 0.233	: 0.082	: 0.050	: 0.071	: 0.491
1ST QUARTILE	: 0.305	: 0.180	: 0.110	: 0.030	: 0.020	: 0.035	: 0.276
2ND QUARTILE	: 0.590	: 0.460	: 0.220	: 0.080	: 0.040	: 0.060	: 0.493
3RD QUARTILE	: 1.035	: 0.950	: 0.395	: 0.085	: 0.135	: 0.135	: 0.926
VOL. WGT. MEAN	: 0.546	: 0.422	: 0.206	: 0.081	: 0.049	: 0.076	: 0.520

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH
***** : INSUFFICIENT DATA OR NOT APPLICABLE

PART V

SUMMARY STATISTICS OF WET DEPOSITION BY STATION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AEROCHEM #06

PERIOD OF REPORT : JAN 3, 88 TO DEC 29, 88

	PRECIP. MM	FREE H+ FIELD MG/H#*2	FREE H+ LAB MG/H#*2	TOTAL H+ GRAN MG/H#*2	SULPHATE MG/H#*2	NITRATE AS N MG/H#*2	CALCIUM MG/H#*2
# OF SAMPLES	128		125	125	124	122	116
MAXIMUM	72.0	5.2048	4.3292	5.7147	307.80	29.520	27.500
MINIMUM	0.1	0.0001	0.0000	0.0012	0.00	0.000	0.012
RANGE	71.9	5.2047	4.3292	5.7135	307.80	29.520	27.488
ARITH. MEAN	5.9	0.4619	0.2967	0.4624	18.37	3.534	2.719
ARITH. STD. DEV	8.8	0.8021	0.6058	0.8704	40.23	5.113	4.389
GEOM. MEAN	2.7	0.1583	0.0334	0.1460	5.49	1.396	1.096
1ST QUANTILE	1.1	0.0815	0.0059	0.0517	1.97	0.477	0.465
2ND QUANTILE	3.3	0.2243	0.0789	0.1489	7.18	1.547	1.272
3RD QUANTILE	7.2	0.4619	0.2940	0.4646	17.01	4.111	2.644
VOL. WGT. MEAN	*****	0.3475	0.2895	0.4520	17.82	3.375	2.497

	CHLORIDE MG/H#*2	MAGNESIUM MG/H#*2	POTASSIUM MG/H#*2	SODIUM MG/H#*2	AMMONIUM AS N MG/H#*2
# OF SAMPLES	124	116	116	115	123
MAXIMUM	15.120	4.902	1.800	7.200	35.112
MINIMUM	0.000	0.000	0.000	0.009	0.000
RANGE	15.120	4.902	1.800	7.191	35.112
ARITH. MEAN	0.998	0.333	0.219	0.402	2.539
ARITH. STD. DEV	1.852	0.649	0.333	0.854	4.838
GEOM. MEAN	0.411	0.133	0.108	0.153	0.711
1ST QUANTILE	0.155	0.039	0.048	0.051	0.267
2ND QUANTILE	0.432	0.126	0.118	0.150	0.920
3RD QUANTILE	0.865	0.309	0.262	0.332	2.526
VOL. WGT. MEAN	0.968	0.305	0.201	0.368	2.431

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AEROCHEM #11

PERIOD OF REPORT : JAN 4, 88 TO DEC 29, 88

	PRECIP. MM	FREE H+ FIELD HG/HMM2	FREE H+ LAB HG/HMM2	TOTAL H+ GRAN HG/HMM2	SULPHATE HG/HMM2	NITRATE AS N HG/HMM2	CALCIUM HG/HMM2
# OF SAMPLES	104	33	93	93	95	95	91
MAXIMUM	38.6	1.8132	2.0620	2.8139	121.42	12.032	9.504
MINIMUM	0.2	0.0328	0.0000	0.0033	0.00	0.024	0.000
RANGE	38.4	1.7805	2.0620	2.8107	121.42	12.008	9.504
ARITH. MEAN	7.2	0.4390	0.3512	0.5440	18.75	3.228	1.593
ARITH. STD. DEV	8.2	0.3906	0.4019	0.5473	22.90	2.695	2.085
GEOM. MEAN	3.7	0.2975	0.1609	0.3136	9.29	2.117	0.879
1ST QUARTILE	1.6	0.1727	0.0946	0.1820	4.41	1.354	0.333
2ND QUARTILE	4.4	0.3742	0.2265	0.3633	11.10	2.511	0.788
3RD QUARTILE	9.2	0.5361	0.4641	0.6820	22.45	4.218	1.776
VOL. WGT. MEAN	*****	0.3838	0.3264	0.5056	17.76	3.057	1.456

	CHLORIDE HG/HMM2	MAGNESIUM HG/HMM2	POTASSIUM HG/HMM2	SODIUM HG/HMM2	AMMONIUM AS N HG/HMM2
# OF SAMPLES	95	91	91	91	94
MAXIMUM	34.750	1.575	1.122	1.351	14.213
MINIMUM	0.000	0.000	0.000	0.000	0.008
RANGE	34.750	1.575	1.122	1.351	14.205
ARITH. MEAN	1.340	0.269	0.163	0.320	2.352
ARITH. STD. DEV	3.718	0.350	0.216	0.362	2.715
GEOM. MEAN	0.673	0.186	0.119	0.216	1.150
1ST QUARTILE	0.222	0.044	0.030	0.087	0.755
2ND QUARTILE	0.528	0.145	0.098	0.178	1.546
3RD QUARTILE	1.300	0.321	0.206	0.333	2.895
VOL. WGT. MEAN	1.269	0.246	0.168	0.293	2.209

***** : INSUFFICIENT DATA

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2) : THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS.
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DAMSON/DAILY/AERO/CHEM./6131

PERIOD OF REPORT : DEC 31, 87 TO DEC 30, 88

	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
# OF SAMPLES	: 104	0	77	77	78	78	79
MAXIMUM	: 46.6	*****	0.5074	1.1642	126.84	19.488	30.240
MINIMUM	: 0.1	*****	0.0000	0.0043	0.00	0.000	0.000
RANGE	: 46.5	*****	0.5073	1.1600	126.84	19.488	30.240
ARITH. MEAN	: 7.4	*****	0.1026	0.2873	12.32	2.525	2.529
ARITH. STD. DEV	: 8.0	*****	0.1297	0.2595	17.44	2.801	4.573
GEOM. MEAN	: 3.6	*****	0.0354	0.1846	5.82	1.400	1.176
1ST QUARTILE	: 2.0	*****	0.0161	0.1025	3.06	0.634	0.210
2ND QUARTILE	: 5.2	*****	0.0415	0.2027	6.76	1.949	1.020
3RD QUARTILE	: 9.6	*****	0.1360	0.3510	15.08	3.282	2.460
VOL. WGT. MEAN	: *****	*****	0.0859	0.2404	10.17	2.086	2.093

	CHLORIDE MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
# OF SAMPLES	: 78	79	79	78	/9
MAXIMUM	: 11.936	3.192	.292	6.384	22.176
MINIMUM	: 0.000	0.000	0.000	0.000	0.000
RANGE	: 11.936	3.192	5.292	6.384	22.176
ARITH. MEAN	: 0.834	0.360	0.415	0.636	2.783
ARITH. STD. DEV	: 1.557	0.590	0.723	1.081	3.700
GEOM. MEAN	: 0.636	0.237	0.228	0.317	1.275
1ST QUARTILE	: 0.106	0.031	0.051	0.091	0.477
2ND QUARTILE	: 0.540	0.125	0.164	0.299	1.611
3RD QUARTILE	: 0.845	0.351	0.416	0.588	3.328
VOL. WGT. MEAN	: 0.689	0.298	0.344	0.522	2.305

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/AEROCHEM #08

PERIOD OF REPORT : DEC 31, 87 TO DEC 31, 88

	PRECIP.	FREE H ⁺ FIELD	FREE H ⁺ LAB	TOTAL H ⁺ GRAM	SULPHATE MG/HMM2	NITRATE AS N MG/HMM2	CALCIUM MG/HMM2
# OF SAMPLES	218	119	195	194	184	189	170
MAXIMUM	32.4	3.3121	4.0748	3.7186	136.95	15.180	15.862
MINIMUM	0.0	0.0011	0.0001	0.0022	0.00	0.000	0.000
RANGE	32.4	3.3110	4.0747	3.7162	136.95	15.180	15.862
ARITH. MEAN	4.7	0.4057	0.7534	0.3798	12.50	2.734	1.246
ARITH. STD. DEV	5.9	0.4235	0.4086	0.4933	17.83	3.200	2.130
GEOM. MEAN	1.8	0.2438	0.0649	0.1506	4.13	1.119	0.610
1ST QUANTILE	0.6	0.1324	0.0182	0.0493	1.40	0.309	0.144
2ND QUANTILE	2.2	0.2891	0.1091	0.1909	5.00	1.660	0.524
3RD QUANTILE	6.6	0.5704	0.3475	0.5215	16.95	3.968	1.634
VOL. WGT. MEAN	*****	0.2838	0.2264	0.3604	10.93	2.391	0.988

	CHLORIDE MG/HMM2	MAGNESIUM MG/HMM2	POTASSIUM MG/HMM2	SODIUM MG/HMM2	AMMONIUM AS N MG/HMM2
# OF SAMPLES	188	170	171	171	195
MAXIMUM	10.092	2.484	1.530	6.072	15.318
MINIMUM	0.000	0.000	0.000	0.000	0.000
RANGE	10.092	2.484	1.530	6.072	15.318
ARITH. MEAN	0.926	0.183	0.169	0.414	1.720
ARITH. STD. DEV	1.435	0.311	0.226	0.740	2.576
GEOM. MEAN	0.433	0.118	0.107	0.201	0.466
1ST QUANTILE	0.090	0.024	0.031	0.057	0.072
2ND QUANTILE	0.390	0.075	0.088	0.188	0.717
3RD QUANTILE	1.187	0.203	0.226	0.665	2.204
VOL. WGT. MEAN	0.806	0.145	0.134	0.750	1.545

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : EGBERT

PERIOD OF REPORT : NOV 29, 88 TO DEC 31, 88

	PRECIP. MM	FREE H+ FIELD MG/H**2	FREE H+ LAB MG/H**2	TOTAL H+ GRAN MG/H**2	SULPHATE MG/H**2	NITRATE AS N MG/H**2	CALCIUM MG/H**2
# OF SAMPLES :	19	0	13	12	9	9	9
MAXIMUM :	7.8	*****	0.3327	0.4781	15.24	2.262	1.580
MINIMUM :	0.2	*****	0.0006	0.0051	0.05	0.098	0.080
RANGE :	7.6	*****	0.3322	0.4731	15.24	2.164	1.500
ARITH. MEAN :	1.6	*****	0.0518	0.0975	3.66	0.757	0.752
ARITH. STD. DEV :	2.3	*****	0.0925	0.1379	4.84	0.825	0.552
GEOM. MEAN :	0.9	*****	0.0152	0.0477	1.01	0.471	0.529
1ST QUANTILE :	0.4	*****	0.0046	0.0240	0.29	0.247	0.266
2ND QUANTILE :	0.6	*****	0.0155	0.0431	0.79	0.386	0.582
3RD QUANTILE :	1.1	*****	0.0376	0.1036	2.81	0.535	0.992
VOL. WGT. MEAN :	*****	*****	0.0387	0.0697	1.76	0.435	0.428

AMMONIUM
AS N
MG/H**2

SODIUM
MG/H**2

POTASSIUM
MG/H**2

MAGNESIUM
MG/H**2

CHLORIDE
MG/H**2

	FREE H+ FIELD MG/H**2	FREE H+ LAB MG/H**2	TOTAL H+ GRAN MG/H**2	SULPHATE MG/H**2	NITRATE AS N MG/H**2	CALCIUM MG/H**2	AMMONIUM AS N MG/H**2	SODIUM MG/H**2	POTASSIUM MG/H**2	MAGNESIUM MG/H**2	CHLORIDE MG/H**2
# OF SAMPLES :	9	9	9	9	8	8	8	9	9	9	9
MAXIMUM :	2.184	0.330	0.160	0.935	0.998	1.580	0.998	0.935	0.160	0.330	2.184
MINIMUM :	0.000	0.010	0.005	0.017	0.066	0.080	0.066	0.017	0.005	0.010	0.000
RANGE :	2.184	0.320	0.154	0.918	0.932	1.500	0.932	0.918	0.154	0.320	2.184
ARITH. MEAN :	0.789	0.124	0.054	0.488	0.261	1.164	0.261	0.488	0.054	0.124	0.789
ARITH. STD. DEV :	0.813	0.122	0.059	0.314	0.307	1.500	0.307	0.314	0.059	0.122	0.813
GEOM. MEAN :	0.475	0.074	0.028	0.314	0.176	1.164	0.176	0.314	0.028	0.074	0.475
1ST QUANTILE :	0.053	0.031	0.009	0.214	0.092	1.164	0.092	0.214	0.009	0.031	0.053
2ND QUANTILE :	0.414	0.075	0.015	0.428	0.167	1.164	0.167	0.428	0.015	0.075	0.414
3RD QUANTILE :	1.165	0.121	0.080	0.673	0.253	1.165	0.253	0.673	0.080	0.121	1.165
VOL. WGT. MEAN :	0.454	0.070	0.031	0.277	0.134	1.165	0.134	0.277	0.031	0.070	0.454

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS - CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FERNBERG/DAILY/AEROCHEM #16

PERIOD OF REPORT : JAN 1, 88 TO DEC 31, 88

	PRECIP. MM	FREE H+ FIELD MG/HMM2	FREE H+ LAB MG/HMM2	TOTAL H+ GRAN MG/HMM2	SULPHATE MG/HMM2	NITRATE AS N MG/HMM2	CALCIUM MG/HMM2
# OF SAMPLES :	153	0	108	108	114	114	106
MAXIMUM :	69.2	*****	1.2866	2.2131	83.65	14.532	9.688
MINIMUM :	0.1	*****	0.0000	0.0010	0.00	0.000	0.000
RANGE :	69.1	*****	1.2865	2.2121	83.65	14.532	9.688
ARITH. MEAN :	5.8	*****	0.0597	0.2035	6.91	1.697	1.204
ARITH. STD. DEV :	9.9	*****	0.1430	0.3029	11.24	2.146	1.868
GEOM. MEAN :	1.7	*****	0.0079	0.0834	2.31	0.677	0.624
1ST QUANTILE :	0.5	*****	0.0014	0.0424	0.66	0.217	0.066
2ND QUANTILE :	2.3	*****	0.0118	0.0904	3.18	0.926	0.515
3RD QUANTILE :	6.4	*****	0.0682	0.2708	9.12	2.565	1.496
VOL. WGT. MEAN :	*****	*****	0.0442	0.1507	5.37	1.518	0.876

AMMONIUM
AS N
MG/HMM2

SODIUM
MG/HMM2

POTASSIUM
MG/HMM2

MAGNESIUM
MG/HMM2

CHLORIDE
MG/HMM2

# OF SAMPLES :	114	106	106	106	120
MAXIMUM :	4.160	2.475	2.076	1.780	29.479
MINIMUM :	0.000	0.000	0.000	0.000	0.000
RANGE :	4.160	2.475	2.076	1.780	29.479
ARITH. MEAN :	0.402	0.202	0.250	0.248	2.019
ARITH. STD. DEV :	0.591	0.368	0.386	0.377	3.574
GEOM. MEAN :	0.285	0.149	0.125	0.140	0.466
1ST QUANTILE :	0.053	0.013	0.031	0.036	0.095
2ND QUANTILE :	0.188	0.105	0.121	0.122	0.790
3RD QUANTILE :	0.497	0.208	0.258	0.260	2.590
VOL. WGT. MEAN :	0.512	0.147	0.182	0.180	1.655

***** : INSUFFICIENT DATA

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2) : THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
 APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF DEPOSITION

STATION-GOWANDA AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES :	167.0	167	167	167	167	167
MAXIMUM :	37.0	89.11	8.51	9.58	2.13	1.620
MINIMUM :	0.0	0.02	0.00	0.00	0.00	0.000
ARITH. MEAN :	4.2	9.02	1.50	0.72	0.34	0.112
ARITH. STD. DEV :	6.2	13.05	1.85	1.52	0.41	0.254
GEOM. MEAN :	1.1	3.23	0.60	0.30	0.22	0.048
1ST QUANTILE :	0.2	0.90	0.08	0.06	0.04	0.005
2ND QUANTILE :	1.3	5.09	0.69	0.20	0.21	0.026
3RD QUANTILE :	5.8	12.72	2.21	0.68	0.46	0.107
VOL. WGT. MEAN :	.	5.13	0.85	0.41	0.19	0.063
MISSING VALUES :	32.0	79	79	83	78	83

	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB UG/M**2
# OF SAMPLES :	167	167	167	167	167.00
MAXIMUM :	1.144	1.080	9.576	1758.26	1083.6
MINIMUM :	0.000	0.000	0.000	2.86	0.01
ARITH. MEAN :	0.136	0.195	0.974	308.52	171.56
ARITH. STD. DEV :	0.200	0.232	1.561	342.00	217.53
GEOM. MEAN :	0.079	0.125	0.271	131.35	45.71
1ST QUANTILE :	0.024	0.052	0.066	36.48	7.50
2ND QUANTILE :	0.076	0.106	0.205	193.44	74.84
3RD QUANTILE :	0.162	0.235	1.346	456.00	245.21
VOL. WGT. MEAN :	0.077	0.110	1.644	175.31	67.01
MISSING VALUES :	84	83	75	80	80.00

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : HIGH FALLS

PERIOD OF REPORT : APR 14, 88 TO DEC 31, 88

	PRECIP.	FREE H ⁺ FIELD	FREE H ⁺ LAB	TOTAL H ⁺ GRAN	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2
# OF SAMPLES :	114	60	91	91	82	81	84
MAXIMUM :	38.2	3.1050	2.7673	3.8200	138.60	27.5114	8.736
MINIMUM :	0.0	0.0034	0.0000	0.0028	0.00	0.000	0.000
RANGE :	38.2	3.1016	2.7673	3.8172	138.60	27.504	8.736
ARITH. MEAN :	5.0	0.5137	0.2983	0.4664	15.35	3.298	1.024
ARITH. STD. DEV :	7.8	0.6287	0.4998	0.7132	23.75	4.626	1.623
GEOM. MEAN :	1.7	0.2390	0.0532	0.1454	5.17	1.124	0.428
1ST QUANTILE :	0.5	0.1025	0.0139	0.0459	1.84	0.334	0.062
2ND QUANTILE :	2.0	0.2340	0.0879	0.1885	6.37	1.629	0.400
3RD QUANTILE :	5.5	0.7429	0.4275	0.5433	21.03	4.486	1.220
VOL. WGT. MEAN :	*****	0.3036	0.2437	0.3810	11.47	2.437	0.781

	CHLORIDE MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2
# OF SAMPLES :	82	84	83	84	86
MAXIMUM :	8.786	1.164	3.135	4.400	16.655
MINIMUM :	0.000	0.000	0.000	0.000	0.000
RANGE :	8.786	1.164	3.135	4.400	16.655
ARITH. MEAN :	0.826	0.177	0.272	0.364	2.129
ARITH. STD. DEV :	1.463	0.259	0.403	0.638	3.061
GEOM. MEAN :	0.429	0.090	0.139	0.147	0.503
1ST QUANTILE :	0.072	0.010	0.039	0.054	0.052
2ND QUANTILE :	0.420	0.063	0.155	0.160	0.909
3RD QUANTILE :	0.907	0.227	0.360	0.359	2.805
VOL. WGT. MEAN :	0.617	0.135	0.206	0.262	1.699

***** : INSUFFICIENT DATA

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2) : THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/AEROCHEN #02

PERIOD OF REPORT : JAN 13, 88 TO DEC 28, 88

	PRECIP. MM	FREE H+ FIELD MG/H**2	FREE H+ LAB MG/H**2	TOTAL H+ GRAN MG/H**2	SULPHATE MG/H**2	NITRATE AS N MG/H**2	CALCIUM MG/H**2
# OF SAMPLES	120	70	107	107	104	104	93
MAXIMUM	69.0	20.3634	7.2252	9.1080	334.65	28.980	28.340
MINIMUM	0.1	0.0002	0.0000	0.0025	0.16	0.000	0.000
RANGE	68.9	20.3632	7.2252	9.1055	334.48	28.980	28.340
ARITH. MEAN	7.4	1.6102	0.3086	0.5878	25.86	4.359	3.732
ARITH. STD. DEV	10.7	3.0464	0.8709	1.1179	42.18	4.889	4.271
GEOM. MEAN	3.7	0.3368	0.0294	0.1964	11.50	2.573	2.345
1ST QUARTILE	1.6	0.1122	0.0032	0.0596	5.64	1.127	1.316
2ND QUARTILE	3.7	0.6504	0.1008	0.2262	12.70	2.801	2.086
3RD QUARTILE	9.1	1.3553	0.3712	0.6463	31.22	5.910	4.626
VOL. WGT. MEAN	*****	1.0760	0.3813	0.5768	25.30	4.259	3.249

	CHLORIDE MG/H**2	MAGNESIUM MG/H**2	POTASSIUM MG/H**2	SODIUM MG/H**2	AMMONIUM AS N MG/H**2
# OF SAMPLES	106	93	94	94	107
MAXIMUM	12.328	4.290	4.992	6.946	24.600
MINIMUM	0.000	0.000	0.033	0.000	0.032
RANGE	12.328	4.290	4.959	6.946	24.568
ARITH. MEAN	1.750	0.688	0.654	0.777	3.794
ARITH. STD. DEV	1.908	0.807	0.782	1.032	4.808
GEOM. MEAN	1.107	0.433	0.406	0.450	1.904
1ST QUARTILE	0.450	0.219	0.210	0.177	0.907
2ND QUARTILE	1.254	0.368	0.384	0.431	1.864
3RD QUARTILE	2.296	0.870	0.745	0.949	4.604
VOL. WGT. MEAN	1.738	0.599	0.573	0.681	3.722

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : MELBOURNE/DAILY/AEROCHEN #01

PERIOD OF REPORT : JAN 3, 88 TO DEC 30, 88

	PRECIP. MM	FREE H+ FIELD MG/H**2	FREE H+ LAB MG/H**2	TOTAL H+ GRAN MG/H**2	SULPHATE AS S MG/H**2	NITRATE AS N MG/H**2	CALCIUM MG/H**2
# OF SAMPLES :	129	69	112	112	109	109	100
MAXIMUM :	40.2	13.1962	3.0231	3.4850	180.18	32.487	33.506
MINIMUM :	0.1	0.0003	0.0000	0.0000	0.00	0.000	0.000
RANGE :	40.1	13.1959	3.0231	3.4850	180.18	32.487	33.506
ARITH. MEAN :	5.1	1.1772	0.3296	0.4842	20.94	3.640	2.817
ARITH. STD. DEV :	6.9	1.9531	0.4923	0.6556	27.40	4.381	4.524
GEOM. MEAN :	2.3	0.3064	0.0409	0.1997	11.37	2.214	1.498
1ST QUARTILE :	1.0	0.1464	0.0123	0.0661	5.80	1.082	0.836
2ND QUARTILE :	2.2	0.4211	0.1219	0.2335	9.92	2.360	1.512
3RD QUARTILE :	6.8	1.2453	0.4897	0.6976	27.82	4.396	2.778
VOL. WGT. MEAN :	*****	0.7255	0.2884	0.4237	17.87	3.107	2.247

	CHLORIDE MG/H**2	MAGNESIUM MG/H**2	POTASSIUM MG/H**2	SODIUM MG/H**2	AMMONIUM AS N MG/H**2
# OF SAMPLES :	109	100	99	99	111
MAXIMUM :	7.371	4.617	3.060	2.970	30.030
MINIMUM :	0.000	0.000	0.000	0.022	0.000
RANGE :	7.371	4.617	3.060	2.948	30.030
ARITH. MEAN :	1.224	0.489	0.343	0.479	3.099
ARITH. STD. DEV :	1.170	0.756	0.428	0.520	4.480
GEOM. MEAN :	0.864	0.289	0.224	0.286	1.649
1ST QUARTILE :	0.465	0.120	0.120	0.139	0.745
2ND QUARTILE :	0.803	0.258	0.208	0.235	1.626
3RD QUARTILE :	1.616	0.504	0.339	0.651	3.599
VOL. WGT. MEAN :	1.045	0.390	0.272	0.379	2.701

***** : INSUFFICIENT DATA

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2) : THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NITHGROVE/DAILY/AEROCHEM #07

PERIOD OF REPORT : DEC 31, 87 TO DEC 31, 88

	PRECIP. MM	FREE H+ FIELD MG/H**2	FREE H+ LAB MG/H**2	TOTAL H+ GRAN MG/H**2	SULPHATE MG/H**2	NITRATE AS N MG/H**2	CALCIUM MG/H**2
# OF SAMPLES	: 135	83	120	120	115	111	100
MAXIMUM	: 30.4	2.1683	2.2189	2.7580	134.40	14.896	12.160
MINIMUM	: 0.0	0.0001	0.0000	0.0030	0.05	0.018	0.000
RANGE	: 30.4	2.1683	2.2188	2.7550	134.35	14.878	12.160
ARITH. MEAN	: 5.1	0.3740	0.2504	0.4029	14.54	2.896	1.292
ARITH. STD. DEV	: 6.0	0.4141	0.3738	0.5202	20.76	3.246	2.040
GEOM. MEAN	: 2.3	0.1439	0.0480	0.1538	5.28	1.260	0.560
1ST QUANTILE	: 0.9	0.0697	0.0137	0.0541	1.80	0.427	0.164
2ND QUANTILE	: 2.8	0.2320	0.0897	0.1815	6.45	1.596	0.610
3RD QUANTILE	: 7.0	0.5339	0.3048	0.5353	18.37	4.178	1.324
VOL. WGT. MEAN	: *****	0.2495	0.2261	0.3639	12.60	2.468	1.063

	CHLORIDE MG/H**2	MAGNESIUM MG/H**2	POTASSIUM MG/H**2	SODIUM MG/H**2	AMMONIUM AS N MG/H**2
# OF SAMPLES	: 116	107	108	108	173
MAXIMUM	: 8.968	1.368	1.633	5.092	17.328
MINIMUM	: 0.000	0.000	0.004	0.006	0.002
RANGE	: 8.968	1.368	1.629	5.086	17.326
ARITH. MEAN	: 0.862	0.180	0.246	0.310	2.301
ARITH. STD. DEV	: 1.293	0.290	0.283	0.547	2.940
GEOM. MEAN	: 0.482	0.119	0.139	0.166	0.742
1ST QUANTILE	: 0.157	0.011	0.072	0.076	0.232
2ND QUANTILE	: 0.430	0.071	0.174	0.189	1.257
3RD QUANTILE	: 1.163	0.170	0.298	0.353	3.302
VOL. WGT. MEAN	: 0.753	0.147	0.202	0.255	2.171

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTH EASTHOPE/DAILY/AEROCHEM #03

PERIOD OF REPORT : DEC 31, 87 TO DEC 30, 88

	PRECIP. MM	FREE H+ FIELD MG/HMM2	FREE H+ LAB MG/HMM2	TOTAL H+ GRAN MG/HMM2	SULPHATE MG/HMM2	NITRATE AS N MG/HMM2	CALCIUM MG/HMM2
# OF SAMPLES	173	81	148	150	142	142	138
MAXIMUM	38.4	6.0451	3.0228	3.9804	145.52	25.200	25.080
MINIMUM	0.1	0.0033	0.0000	0.0054	0.10	0.010	0.000
RANGE	38.3	6.0418	3.0228	3.9749	145.42	25.190	25.080
ARITH. MEAN	5.2	1.0105	0.2511	0.3953	17.80	3.139	2.464
ARITH. STD. DEV	6.9	1.4084	0.4576	0.6095	23.68	3.977	3.492
GEOM. MEAN	2.5	0.3708	0.0179	0.1363	7.68	1.496	1.256
1ST QUARTILE	0.9	0.1605	0.0007	0.0364	3.06	0.658	0.608
2ND QUARTILE	2.3	0.4171	0.0500	0.1577	10.53	1.948	1.232
3RD QUARTILE	5.8	1.0653	0.2970	0.4806	23.19	4.100	3.006
VOL. WGT. MEAN	*****	0.5780	0.2191	0.3482	15.02	2.648	2.028

	CHLORIDE MG/HMM2	MAGNESIUM MG/HMM2	POTASSIUM MG/HMM2	SODIUM MG/HMM2	AMMONIUM AS N MG/HMM2
# OF SAMPLES	142	138	137	138	151
MAXIMUM	15.408	4.890	2.590	6.300	17.980
MINIMUM	0.000	0.000	0.000	0.018	0.000
RANGE	15.408	4.890	2.590	6.282	17.980
ARITH. MEAN	1.206	0.500	0.228	0.455	2.879
ARITH. STD. DEV	2.122	0.762	0.329	0.811	3.581
GEOM. MEAN	0.610	0.256	0.124	0.196	1.260
1ST QUARTILE	0.209	0.099	0.046	0.084	0.540
2ND QUARTILE	0.545	0.269	0.112	0.175	1.112
3RD QUARTILE	1.189	0.558	0.255	0.384	3.760
VOL. WGT. MEAN	1.017	0.412	0.187	0.374	2.550

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PENNL. STATE

PERIOD OF REPORT : MAY 16, 88 TO DEC 28, 88

# OF SAMPLES	PRECIP. MM	FREE H+ FIELD MG/MM#2	FREE H+ LAB MG/MM#2	TOTAL H+ GRAN MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2
50	30.4	*****	40	40	36	36	37
MAXIMUM	30.4	*****	2.9000	3.5090	140.65	11.552	5.984
MINIMUM	0.1	*****	0.0012	0.0068	0.87	0.102	0.000
RANGE	30.3	*****	2.8988	3.5022	139.78	11.450	5.984
ARITH. MEAN	7.1	*****	0.4308	0.6098	20.71	2.938	0.830
ARITH. STD. DEV	8.9	*****	0.5739	0.7157	26.89	2.953	1.105
GEOM. MEAN	2.6	*****	0.1740	0.2876	10.20	1.696	0.553
1ST QUANTILE	0.6	*****	0.0566	0.0971	4.20	0.785	0.162
2ND QUANTILE	3.0	*****	0.2765	0.4028	12.63	1.999	0.430
3RD QUANTILE	8.8	*****	0.4517	0.7558	24.14	3.756	1.037
VOL. WGT. MEAN	*****	*****	0.3669	0.5195	16.97	2.407	0.656

# OF SAMPLES	CHLORIDE MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2
36	37	37	37	40	40
MAXIMUM	3.190	0.986	0.986	1.938	9.742
MINIMUM	0.000	0.000	0.000	0.012	0.032
RANGE	3.190	0.986	0.986	1.926	9.760
ARITH. MEAN	0.945	0.143	0.148	0.337	1.590
ARITH. STD. DEV	0.835	0.188	0.212	0.408	2.242
GEOM. MEAN	0.662	0.151	0.117	0.175	0.663
1ST QUANTILE	0.272	0.028	0.030	0.040	0.180
2ND QUANTILE	0.635	0.078	0.082	0.170	0.983
3RD QUANTILE	1.491	0.173	0.150	0.428	1.972
VOL. WGT. MEAN	0.774	0.113	0.117	0.266	1.346

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APLOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : QUETICO CENTRE/DAILY/AEROSOL #14

PERIOD OF REPORT : JAN 7, 88 TO DEC 28, 88

	PRECIP. MM	FREE H+ FIELD MG/H**2	FREE H+ LAB MG/H**2	TOTAL H+ GRAN MG/H**2	SULPHATE MG/H**2	NITRATE AS N MG/H**2	CALCIUM MG/H**2
# OF SAMPLES	: 84	0	69	69	68	68	68
MAXIMUM	: 140.0	*****	0.6933	2.8700	49.82	12.576	16.560
MINIMUM	: 0.1	*****	0.0005	0.0272	2.10	0.152	0.000
RANGE	: 139.9	*****	0.6929	2.8428	47.72	12.224	16.560
ARITH. MEAN	: 10.7	*****	0.1116	0.3678	11.91	2.825	2.161
ARITH. STD. DEV	: 16.5	*****	0.1327	0.3899	10.70	2.164	2.760
GEOM. MEAN	: 5.6	*****	0.0390	0.2558	8.71	2.142	1.533
1ST QUARTILE	: 3.7	*****	0.0072	0.1564	5.03	1.428	0.614
2ND QUARTILE	: 6.6	*****	0.0756	0.2561	8.03	2.204	1.152
3RD QUARTILE	: 12.3	*****	0.1585	0.4086	14.44	3.767	2.462
VOL. WGT. MEAN	: *****	*****	0.0948	0.3082	10.02	2.378	1.812

CHLORIDE
MG/H**2

SODIUM
MG/H**2

POTASSIUM
MG/H**2

MAGNESIUM
MG/H**2

AMMONIUM
AS N
MG/H**2

# OF SAMPLES	: 68	68	68	68	69	69	69
MAXIMUM	: 3.630	2.970	1.950	4.589	18.224	18.224	18.224
MINIMUM	: 0.000	0.000	0.000	0.000	0.211	0.211	0.211
RANGE	: 3.630	2.970	1.950	4.589	18.013	18.013	18.013
ARITH. MEAN	: 0.725	0.317	0.395	0.495	3.202	3.202	3.202
ARITH. STD. DEV	: 0.678	0.437	0.407	0.755	3.247	3.247	3.247
GEOM. MEAN	: 0.704	0.270	0.334	0.325	2.064	2.064	2.064
1ST QUARTILE	: 0.318	0.084	0.143	0.139	1.109	1.109	1.109
2ND QUARTILE	: 0.605	0.181	0.250	0.282	2.149	2.149	2.149
3RD QUARTILE	: 0.938	0.375	0.477	0.508	3.928	3.928	3.928
VOL. WGT. MEAN	: 0.611	0.266	0.331	0.415	2.720	2.720	2.720

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAILTON/DAILY/AEROCHEM #10

PERIOD OF REPORT : JAN 8, 88 TO DEC 29, 88

	PRECIP. MM	FREE H+ FIELD MG/H**2	FREE H+ LAB MG/H**2	TOTAL H+ GRAN MG/H**2	SULPHATE MG/H**2	NITRATE AS N MG/H**2	CALCIUM MG/H**2
# OF SAMPLES	60	21	51	51	53	53	50
MAXIMUM	28.2	2.1023	1.8737	2.7664	95.09	15.561	13.224
MINIMUM	0.2	0.0002	0.0000	0.0000	0.24	0.000	0.000
RANGE	28.0	2.1021	1.8737	2.7664	94.85	15.561	13.224
ARITH. MEAN	6.4	0.6287	0.7801	0.5924	23.29	3.706	3.036
ARITH. STD. DEV	3.7	0.5173	0.3746	0.5564	21.32	3.706	3.235
GEOM. MEAN	3.7	0.2307	0.1261	0.3391	12.98	2.634	1.764
1ST QUANTILE	2.0	0.3108	0.0646	0.1334	6.97	1.290	0.701
2ND QUANTILE	4.2	0.4875	0.2056	0.4522	16.46	2.976	1.968
3RD QUANTILE	8.0	0.8206	0.5340	0.8338	33.30	5.931	3.534
VOL. WGT. MEAN	*****	0.5188	0.3590	0.5520	22.45	4.144	2.870

	CHLORIDE MG/H**2	MAGNESIUM MG/H**2	POTASSIUM MG/H**2	SODIUM MG/H**2	AMMONIUM AS N MG/H**2
# OF SAMPLES	53	50	51	51	50
MAXIMUM	10.672	1.740	2.556	7.866	11.362
MINIMUM	0.000	0.000	0.000	0.000	0.066
RANGE	10.672	1.740	2.556	7.866	11.296
ARITH. MEAN	1.360	0.392	0.324	0.579	3.290
ARITH. STD. DEV	1.808	0.419	0.452	1.169	2.894
GEOM. MEAN	0.732	0.236	0.206	0.277	1.970
1ST QUANTILE	0.279	0.110	0.063	0.072	0.913
2ND QUANTILE	0.712	0.217	0.194	0.208	2.630
3RD QUANTILE	1.596	0.508	0.351	0.622	4.491
VOL. WGT. MEAN	1.310	0.370	0.307	0.550	3.104

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : RAVEN LAKE/DAILY/AEROCHEM #05

PERIOD OF REPORT : DEC 31, 87 TO DEC 31, 88

# OF SAMPLES	PRECIP. MM	FREE FIELD MG/H**2	FREE H+ LAB MG/H**2	TOTAL H+ GRAN MG/H**2	SULPHATE MG/H**2	NITRATE AS N MG/H**2	CALCIUM MG/H**2
167	167	71	137	137	136	134	134
MAXIMUM	40.0	4.8091	4.7861	5.2400	236.00	24.800	15.080
MINIMUM	0.0	0.0006	0.0000	0.0025	0.00	0.020	0.000
RANGE	40.0	4.8084	4.7861	5.2375	236.00	24.780	15.080
ARITH. MEAN	4.6	0.4655	0.2344	0.5730	16.49	2.626	1.927
ARITH. STD. DEV	6.0	0.7678	0.5373	0.6878	31.53	3.859	2.912
GEOM. MEAN	2.1	0.1913	0.0325	0.1286	4.66	1.032	0.856
1ST QUANTILE	0.8	0.0735	0.0066	0.0430	1.50	0.362	0.282
2ND QUANTILE	2.0	0.2468	0.0645	0.1204	4.37	1.296	0.834
3RD QUANTILE	6.1	0.4872	0.2334	0.3935	14.74	3.280	2.272
VOL. WGT. MEAN	*****	0.2595	0.2147	0.3418	15.16	2.369	1.610

CHLORIDE MG/H**2	MAGNESIUM MG/H**2	POTASSIUM MG/H**2	SODIUM MG/H**2	AMMONIUM AS N MG/H**2
137	124	173	124	140
4.400	2.850	2.130	2.688	25.536
0.000	0.000	0.000	0.000	0.001
4.400	2.850	2.130	2.688	25.535
0.662	0.242	0.155	0.268	2.149
0.858	0.432	0.247	0.381	3.900
0.362	0.114	0.093	0.166	0.573
0.120	0.030	0.027	0.064	0.195
0.349	0.090	0.077	0.120	0.723
0.858	0.223	0.105	0.275	2.142
0.606	0.202	0.130	0.207	1.991

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SUTTON/DAILY/AEROCHEN./7011

PERIOD OF REPORT : DEC 31, 87 TO APR 26, 88

# OF SAMPLES	PRECIP. MM	FREE H+ FIELD MG/M**2	FREE H+ LAB MG/M**2	TOTAL H+ GRAN MG/M**2	SULPHATE MG/M**2	NITRATE AS N MG/M**2	CALCIUM MG/M**2
76	20.2	0	36	37	41	41	29
MAXIMUM		*****	1.2420	1.9200	58.40	10.908	4.560
MINIMUM		*****	0.0001	0.0150	0.09	0.018	0.000
RANGE		*****	1.2419	1.9050	58.31	10.890	4.560
ARITH. MEAN		*****	0.2590	0.4135	9.96	3.008	1.002
ARITH. STD. DEV		*****	0.2660	0.4013	11.55	2.755	1.106
GEOM. MEAN		*****	0.1027	0.2514	4.92	1.709	0.779
1ST QUANTILE		*****	0.0795	0.1256	1.98	0.983	0.192
2ND QUANTILE		*****	0.2148	0.3138	5.46	2.146	0.600
3RD QUANTILE		*****	0.3100	0.4916	13.43	3.624	1.530
VOL. WGT. MEAN		*****	0.1533	0.2340	5.89	1.778	0.455

# OF SAMPLES	CHLORIDE MG/M**2	MAGNESIUM MG/M**2	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM AS N MG/M**2
41	29	29	40	29	40
MAXIMUM	2.592	0.876	0.340	1.875	6.666
MINIMUM	0.018	0.000	0.000	0.000	0.000
RANGE	2.574	0.876	0.340	1.875	6.666
ARITH. MEAN	0.683	0.109	0.088	0.470	1.433
ARITH. STD. DEV	0.624	0.176	0.083	0.518	1.794
GEOM. MEAN	0.459	0.229	0.106	0.345	0.544
1ST QUANTILE	0.249	0.000	0.024	0.118	0.105
2ND QUANTILE	0.517	0.051	0.061	0.205	0.76
3RD QUANTILE	0.847	0.135	0.118	0.529	1.888
VOL. WGT. MEAN	0.404	0.049	0.040	0.213	0.828

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WELLESLEY/DAILY/AEROCHEM #04

PERIOD OF REPORT : JAN 1, 80 TO DEC 30, 80

	PRECIP. MM	FREE H+ FIELD MG/MM#2	FREE H+ LAB MG/MM#2	TOTAL H+ GRAN MG/MM#2	SULPHATE MG/MM#2	NITR. + AS N MG/MM#2	CALCIUM MG/MM#2
# OF SAMPLES :	161	73	135	135	131	131	115
MAXIMUM :	44.9	5.7842	3.9106	5.2533	206.56	19.756	27.008
MINIMUM :	0.1	0.0011	0.0000	0.0048	0.23	0.000	0.000
RANGE :	44.8	5.7831	3.9106	5.2485	206.31	19.756	27.008
ARITH. MEAN :	5.1	0.7359	0.2564	0.3971	19.22	3.073	2.819
ARITH. STD. DEV :	6.7	1.0015	0.4895	0.6301	27.66	3.492	4.056
GEOM. MEAN :	2.5	0.2602	0.0213	0.1532	9.14	1.581	1.400
1ST QUARTILE :	1.1	0.1643	0.0009	0.0546	3.86	0.742	0.532
2ND QUARTILE :	2.9	0.4196	0.0787	0.1924	11.90	2.157	1.283
3RD QUARTILE :	6.0	0.8661	0.3137	0.5056	22.55	4.064	3.657
VOL. WGT. MEAN :	*****	0.4047	0.2218	0.3463	16.31	2.608	2.193

	CHLORIDE MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2
# OF SAMPLES :	130	115	114	115	133
MAXIMUM :	8.160	5.486	2.110	3.307	24.515
MINIMUM :	0.000	0.000	0.000	0.000	0.095
RANGE :	8.160	5.486	2.110	3.307	24.470
ARITH. MEAN :	1.120	0.574	0.208	0.413	3.412
ARITH. STD. DEV :	1.436	0.886	0.309	0.603	4.065
GEOM. MEAN :	0.602	0.281	0.138	0.220	1.922
1ST QUARTILE :	0.222	0.114	0.039	0.065	0.938
2ND QUARTILE :	0.605	0.254	0.107	0.206	2.193
3RD QUARTILE :	1.400	0.638	0.247	0.461	4.062
VOL. WGT. MEAN :	0.947	0.447	0.161	0.321	2.964

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
 APTOS - ACIDIC PRECIPITATION IN ONTARIO STUDY
 SUMMARY STATISTICS OF DEPOSITION

STATION=WILMER AEROCHEM SITE NO.1

	EQUIVALENT PREC. DEPTH MM	SULFATE MG/M**2	NITRATE MG/M**2	CALCIUM MG/M**2	CHLORIDE MG/M**2	MAGNESIUM MG/M**2
# OF SAMPLES	180.0	180	180	180	180	180
MAXIMUM	32.4	77.49	19.61	17.64	13.68	2.695
MINIMUM	0.2	0.08	0.04	0.00	0.00	0.000
ARITH. MEAN	4.3	14.71	3.28	1.70	0.96	0.243
ARITH. STD. DEV	5.4	14.91	3.14	2.35	1.48	0.372
GEOM. MEAN	1.9	7.66	1.88	0.94	0.57	0.135
1ST QUARTILE	0.4	3.26	1.10	0.43	0.18	0.040
2ND QUARTILE	2.2	10.78	2.51	0.97	0.54	0.132
3RD QUARTILE	6.4	19.56	4.28	2.10	1.26	0.288
VOL. WGT. MEAN		10.57	2.37	1.18	0.69	0.169
MISSING VALUES	2.0	56	57	60	55	60

	POTASSIUM MG/M**2	SODIUM MG/M**2	AMMONIUM MG/M**2	ACIDITY GRAN UG/M**2	FREEH+ LAB UG/M**2
# OF SAMPLES	180	180	180	180	180.00
MAXIMUM	0.800	2.736	9.546	1992.60	1562.5
MINIMUM	0.000	0.000	0.000	8.36	0.02
ARITH. MEAN	0.157	0.413	1.851	452.49	291.93
ARITH. STD. DEV	0.144	0.548	1.944	424.59	304.63
GEOM. MEAN	0.113	0.217	1.052	262.13	111.19
1ST QUARTILE	0.056	0.078	0.478	146.40	63.65
2ND QUARTILE	0.120	0.212	1.292	338.52	188.47
3RD QUARTILE	0.231	0.495	2.482	609.75	433.81
VOL. WGT. MEAN	0.109	0.287	1.343	319.04	
MISSING VALUES	60	60	56	58	58.00

PART VI

SUMMARY STATISTICS OF WET DEPOSITION BY REGION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CENTRAL REGION/DAILY PRECIPITATION

PERIOD OF REPORT : DEC 31, 87 TO DEC 31, 88

# OF SAMPLES	PRECIP. MM	FREE H+ FIELD MG/H**2	FREE H+ LAB MG/H**2	TOTAL H+ GRAN MG/H**2	SULPHATE MG/H**2	NITRATE AS N MG/H**2	CALCIUM MG/H**2
MAXIMUM	648	350	75	576	564	558	518
MINIMUM	72.0	5.2048	4.3292	5.7147	307.80	29.520	27.500
RANGE	0.0	0.0001	0.0000	0.0012	0.000	0.000	0.000
ARITH. MEAN	72.0	5.2047	4.3292	5.7135	307.80	29.520	27.500
ARITH. STD. DEV	5.0	0.4227	0.2575	0.4009	14.69	2.916	1.749
GEOM. MEAN	6.6	0.6006	0.4827	0.6435	28.11	3.863	2.999
1ST QUARTILE	2.1	0.1863	0.0447	0.1447	4.76	1.100	0.741
2ND QUARTILE	0.8	0.0916	0.0122	0.0499	1.84	0.413	0.230
3RD QUARTILE	2.4	0.2525	0.0891	0.1718	5.99	1.525	0.774
VOL. WGT. MEAN	6.6	0.5181	0.2940	0.4846	17.20	3.969	1.848
	*****	0.2663	0.2359	0.3676	13.19	2.597	1.457

# OF SAMPLES	CHLORIDE MG/H**2	MAGNESIUM MG/H**2	POTASSIUM MG/H**2	SODIUM MG/H**2	AMMONIUM AS N MG/H**2
MAXIMUM	565	517	518	518	580
MINIMUM	15.120	4.902	2.130	7.200	35.112
RANGE	0.000	0.000	0.000	0.000	0.000
ARITH. MEAN	15.120	4.902	2.130	7.200	35.112
ARITH. STD. DEV	0.865	0.230	0.193	0.350	2.119
GEOM. MEAN	1.402	0.437	0.271	0.665	3.562
1ST QUARTILE	0.419	0.120	0.110	0.168	0.591
2ND QUARTILE	0.127	0.025	0.059	0.055	0.179
3RD QUARTILE	0.384	0.090	0.105	0.165	0.850
VOL. WGT. MEAN	1.055	0.226	0.243	0.360	2.426
	0.778	0.191	0.161	0.292	1.950

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHEASTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : APR 11, 88 TO DEC 31, 88

	PRECIP. MM	FREE H+ FIELD MG/H**2	FREE H+ LAB MG/H**2	TOTAL H+ GRAN MG/H**2	SULPHATE MG/H**2	NITRATE AS N MG/H**2	CALCIUM MG/H**2
# OF SAMPLES	: 262	127	179	179	171	170	168
MAXIMUM	: 140.0	4.2961	5.1123	6.5540	248.60	49.720	27.120
MINIMUM	: 0.0	0.0034	0.0000	0.0028	0.00	0.000	0.000
RANGE	: 140.0	4.2927	5.1123	6.5512	248.60	49.720	27.120
ARITH. MEAN	: 5.8	0.4515	0.2686	0.4697	14.79	2.749	1.082
ARITH. STD. DEV	: 15.1	0.6259	0.4702	0.8680	27.55	5.185	2.604
GEOM. MEAN	: 1.2	0.2106	0.0520	0.1450	4.21	0.865	0.409
1ST QUANTILE	: 0.3	0.0862	0.0123	0.0415	1.02	0.153	0.065
2ND QUANTILE	: 1.4	0.2243	0.0820	0.1916	5.74	1.055	0.299
3RD QUANTILE	: 5.4	0.5780	0.5019	0.4963	17.15	3.330	1.004
VOL. WGT. MEAN	: *****	0.2669	0.1911	0.3342	9.73	1.862	0.733

CHLORIDE
MG/H**2

MAGNESIUM
MG/H**2

POTASSIUM
MG/H**2

SODIUM
MG/H**2

AMMONIUM
AS N
MG/H**2

# OF SAMPLES	: 172	168	166	168	179		
MAXIMUM	: 8.786	4.520	4.520	8.475	38.420		
MINIMUM	: 0.000	0.000	0.000	0.000	0.000		
RANGE	: 8.786	4.520	4.520	8.475	38.420		
ARITH. MEAN	: 0.642	0.175	0.251	0.351	0.700		
ARITH. STD. DEV	: 1.193	0.427	0.505	0.850	3.766		
GEOM. MEAN	: 0.351	0.091	0.123	0.152	0.395		
1ST QUANTILE	: 0.056	0.008	0.031	0.053	0.066		
2ND QUANTILE	: 0.237	0.048	0.111	0.137	0.518		
3RD QUANTILE	: 0.688	0.174	0.270	0.312	2.053		
VOL. WGT. MEAN	: 0.439	0.119	0.169	0.238	1.326		

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. ALSO REPRESENT GAUGE DEPTH
NOTE(2): THE VOLUME WEIGHTED MEAN DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.
(SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 1, 88 TO DEC 30, 88

	PRECIP. MM	FREE H+ FIELD MG/MM#2	FREE H+ LAB MG/MM#2	TOTAL H+ GRAN MG/MM#2	SULPHATE MG/MM#2	NITRATE AS N MG/MM#2	CALCIUM MG/MM#2
# OF SAMPLES	341	0	254	254	260	260	253
MAXIMUM	140.0	*****	1.2866	2.8700	126.84	19.488	30.240
MINIMUM	0.1	*****	0.0000	0.0010	0.000	0.000	0.000
RANGE	139.9	*****	1.2865	2.8690	126.84	19.488	30.240
ARITH. MEAN	7.5	*****	0.0868	0.2722	9.84	2.241	1.875
ARITH. STD. DEV	11.5	*****	0.1378	0.3228	13.49	2.408	3.209
GEOM. MEAN	2.9	*****	0.0192	0.1439	4.31	1.138	0.933
1ST QUANTILE	1.1	*****	0.0040	0.0734	1.99	0.588	0.254
2ND QUANTILE	4.3	*****	0.0370	0.1932	5.79	1.587	0.896
3RD QUANTILE	9.3	*****	0.1138	0.3447	13.35	3.142	2.000
VOL. WGT. MEAN	*****	*****	0.0690	0.2163	7.94	1.808	1.470

	CHLORIDE MG/MM#2	MAGNESIUM MG/MM#2	POTASSIUM MG/MM#2	SODIUM MG/MM#2	AMMONIUM AS N MG/MM#2
# OF SAMPLES	260	253	253	252	268
MAXIMUM	11.936	3.192	5.292	6.384	29.479
MINIMUM	0.000	0.000	0.000	0.000	0.000
RANGE	11.936	3.192	5.292	6.384	29.479
ARITH. MEAN	0.616	0.282	0.341	0.435	2.549
ARITH. STD. DEV	1.015	0.469	0.523	0.774	3.554
GEOM. MEAN	0.459	0.202	0.196	0.226	0.922
1ST QUANTILE	0.106	0.031	0.051	0.073	0.331
2ND QUANTILE	0.372	0.132	0.188	0.188	1.376
3RD QUANTILE	0.750	0.335	0.400	0.431	3.230
VOL. WGT. MEAN	0.497	0.221	0.267	0.340	2.103

***** : INSUFFICIENT DATA

NOTE(1): PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2): THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHEASTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 4, 88 TO DEC 31, 88

	PRECIP. MM	FREE H+ FIELD HG/MM*2	FREE H+ LAB HG/MM*2	TOTAL H+ GRAM HG/MM*2	SULPHATE HG/MM*2	NITRATE AS N HG/MM*2	CALCIUM HG/MM*2
# OF SAMPLES	: 342	: 67	: 266	: 266	: 272	: 271	: 261
MAXIMUM	: 113.8	: 2.1023	: 4.0378	: 6.6004	: 176.59	: 27.312	: 17.640
MINIMUM	: 0.2	: 0.0002	: 0.0000	: 0.0000	: 0.00	: 0.000	: 0.000
RANGE	: 113.6	: 2.1021	: 4.0378	: 6.6004	: 176.39	: 27.312	: 17.640
ARITH. MEAN	: 5.8	: 0.4578	: 0.3428	: 0.5331	: 18.36	: 3.569	: 1.940
ARITH. STD. DEV	: 8.8	: 0.4294	: 0.4217	: 0.6221	: 21.75	: 3.449	: 1.044
GEOM. MEAN	: 2.6	: 0.2358	: 0.1306	: 0.2955	: 9.15	: 2.108	: 0.420
1ST QUANTILE	: 0.8	: 0.1414	: 0.0780	: 0.1605	: 4.46	: 1.238	: 1.080
2ND QUANTILE	: 3.0	: 0.3906	: 0.2302	: 0.3777	: 11.49	: 2.568	: 2.292
3RD QUANTILE	: 7.4	: 0.6012	: 0.4647	: 0.6781	: 23.16	: 4.765	: 1.565
VOL. WGT. MEAN	: *****	: 0.3745	: 0.2801	: 0.4345	: 15.29	: 2.960	

	CHLORIDE HG/MM*2	MAGNESIUM HG/MM*2	POTASSIUM HG/MM*2	SODIUM HG/MM*2	AMMONIUM AS N HG/MM*2
# OF SAMPLES	: 273	: 261	: 262	: 262	: 268
MAXIMUM	: 34.750	: 2.695	: 7.556	: 7.866	: 16.615
MINIMUM	: 0.000	: 0.000	: 0.000	: 0.000	: 0.000
RANGE	: 34.750	: 2.695	: 7.556	: 7.866	: 16.615
ARITH. MEAN	: 1.186	: 0.281	: 0.199	: 0.413	: 2.349
ARITH. STD. DEV	: 2.551	: 0.377	: 0.262	: 0.679	: 2.625
GEOM. MEAN	: 0.653	: 0.181	: 0.139	: 0.234	: 1.229
1ST QUANTILE	: 0.228	: 0.058	: 0.054	: 0.081	: 0.659
2ND QUANTILE	: 0.576	: 0.153	: 0.120	: 0.201	: 1.435
3RD QUANTILE	: 1.360	: 0.318	: 0.462	: 0.662	: 3.082
VOL. WGT. MEAN	: 0.991	: 0.226	: 0.160	: 0.334	: 1.950

***** : INSUFFICIENT DATA

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2) : THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF CALCULATED DEPOSITIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHWESTERN REGION/DAILY PRECIPITATION

PERIOD OF REPORT : JAN 13, 88 TO DEC 31, 88

	PRECIP. MM	FREE H+ FIELD MG/H**2	FREE H+ LAB MG/H**2	TOTAL H+ GRAN MG/H**2	SULPHATE MG/H**2	NITRATE AS N MG/H**2	CALCIUM MG/H**2
# OF SAMPLES :	602	293	515	516	495	495	455
MAXIMUM :	69.0	20.3634	7.2252	9.1080	334.65	32.487	33.306
MINIMUM :	0.1	0.0002	0.0000	0.0000	0.00	0.000	0.000
RANGE :	68.9	20.3632	7.2252	9.1080	334.65	32.487	33.306
ARITH. MEAN :	5.5	1.1246	0.2926	0.4481	20.29	3.465	2.857
GEOM. MEAN :	7.6	1.9827	0.5795	0.7568	30.18	4.159	4.033
ARITH. STD. DEV :	2.6	0.3177	0.0248	0.1607	9.20	1.785	1.499
1ST QUARTILE :	1.0	0.1561	0.0015	0.0490	4.01	0.820	0.680
2ND QUARTILE :	2.6	0.4473	0.0805	0.1825	10.86	2.262	1.471
3RD QUARTILE :	6.6	1.1482	0.3181	0.5179	25.98	4.335	3.200
VOL. WGT. MEAN :	*****	0.6716	0.2613	0.4005	17.60	2.988	2.311

CHLORIDE MG/H**2	MAGNESIUM MG/H**2	POTASSIUM MG/H**2	SODIUM MG/H**2	AMMONIUM AS N MG/H**2
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# OF SAMPLES :	496	455	455	510
MAXIMUM :	15.408	5.486	4.992	30.030
MINIMUM :	0.000	0.000	0.000	0.000
RANGE :	15.408	5.486	4.992	30.030
ARITH. MEAN :	1.296	0.567	0.333	3.217
GEOM. MEAN :	1.721	0.799	0.502	4.177
ARITH. STD. DEV :	0.742	0.293	0.180	1.613
1ST QUARTILE :	0.296	0.118	0.070	0.718
2ND QUARTILE :	0.736	0.276	0.168	1.826
3RD QUARTILE :	1.575	0.591	0.352	3.946
VOL. WGT. MEAN :	1.127	0.443	0.269	2.849

***** : INSUFFICIENT DATA

NOTE(1) : PRECIP. VALUES REPRESENT GAUGE DEPTH

NOTE(2) : THE VOLUME WEIGHTED MEAN DEPOSITION REPRESENTS THE PRODUCT OF VOLUME WEIGHTED MEAN CONCENTRATION (SEE PART III) AND ANNUAL PRECIPITATION GAUGE DEPTH, DIVIDED BY THE NUMBER OF SAMPLES.

PART VII

SUMMARY STATISTICS OF AIR CONCENTRATION BY STATION, REGION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : BALSAM LAKE/DAILY/AIR

PERIOD OF REPORT : JAN 15,88 TO DEC 31,88

PAGE : 1

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	NITRIC AS N UG/M**3	AMMONIUM AS N UG/M**3	NITRATE AS N UG/M**3	TOTL NO3 AS N UG/M**3
# OF SAMPLES :	294.0	297.00	298.00	293.000	298.00	298.00
MAXIMUM :	43.5	73.10	1.31	5.370	2.01	2.29
MINIMUM :	0.0	0.00	0.00	0.000	0.00	0.00
RANGE :	43.5	73.10	1.31	5.370	2.01	2.29
ARITH. MEAN :	5.3	3.95	0.25	0.833	0.21	0.46
ARITH. STD. DEV :	6.4	6.55	0.27	0.982	0.28	0.46
GEOM. MEAN :	2.7	2.25	0.19	0.495	0.12	0.29
1ST QUARTILE :	0.8	1.13	0.05	0.197	0.04	0.11
2ND QUARTILE :	3.3	2.09	0.15	0.485	0.10	0.27
3RD QUARTILE :	7.0	4.00	0.37	1.066	0.29	0.70

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CHARLESTON LAKE/DAILY/AIR				#11					PAGE : 1			
PERIOD OF REPORT : DEC 31,87 TO DEC 31,88												
		SULPHUR DIOXIDE UG/H*H*3	SULPHATE UG/H*H*3	NITRIC AS N UG/H*H*3	AMMONIUM AS N UG/H*H*3	NITRATE AS N UG/H*H*3	TOTAL NO3 AS N UG/H*H*3					
# OF SAMPLES	:	237.0	237.00	237.00	236.000	235.00	235.00					
MAXIMUM	:	82.6	28.15	1.57	5.688	1.16	2.01					
MINIMUM	:	0.0	0.00	0.00	0.000	0.00	0.00					
RANGE	:	82.6	28.15	1.57	5.688	1.16	2.01					
ARITH. MEAN	:	3.9	3.51	0.33	0.809	0.12	0.45					
ARITH. STD. DEV	:	7.0	4.89	0.35	1.116	0.16	0.42					
GEOM. MEAN	:	1.9	1.94	0.26	0.531	0.12	0.34					
1ST QUARTILE	:	0.6	0.66	0.07	0.120	0.03	0.13					
2ND QUARTILE	:	1.7	1.84	0.21	0.431	0.07	0.31					
3RD QUARTILE	:	4.5	3.97	0.46	1.013	0.14	0.70					

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : DORSET/DAILY/AIR				#08		PAGE : 1		
PERIOD OF REPORT		DEC 31,87	TO	DEC 31,88				
		SULPHUR DIOXIDE UG/H**3	SULPHATE UG/H**3	NITRIC AS N UG/H**3	AMMONIUM AS N UG/H**3	NITRATE AS N UG/H**3	TOTL NO3 AS N UG/H**3	
# OF SAMPLES	:	359.0	359.00	359.00	358.000	359.00	359.00	
MAXIMUM	:	34.9	26.04	1.10	7.083	1.41	2.03	
MINIMUM	:	0.0	0.00	0.00	0.000	0.00	0.00	
RANGE	:	34.9	26.04	1.10	7.083	1.41	2.03	
ARITH. MEAN	:	4.7	3.15	0.18	0.667	0.12	0.30	
ARITH. STD. DEV	:	6.1	3.84	0.21	0.932	0.22	0.35	
GEOM. MEAN	:	2.3	2.02	0.15	0.321	0.09	0.18	
1ST QUARTILE	:	0.6	1.13	0.03	0.105	0.01	0.06	
2ND QUARTILE	:	2.3	1.96	0.10	0.308	0.04	0.15	
3RD QUARTILE	:	6.5	3.54	0.27	0.836	0.10	0.43	

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : EGBERT/DAILY/AIR

PERIOD OF REPORT : SEP 29,88 TO DEC 31,88

PAGE : 1

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	NITRIC AS N UG/M**3	AMMONIUM AS N UG/M**3	NITRATE AS N UG/M**3	TOTL NO3 AS N UG/M**3
# OF SAMPLES	: 88.0	: 88.00	: 88.00	: 88.000	: 88.00	: 88.00
MAXIMUM	: 30.5	: 12.83	: 1.24	: 4.041	: 2.05	: 2.41
MINIMUM	: 0.0	: 0.00	: 0.00	: 0.000	: 0.00	: 0.01
RANGE	: 30.5	: 12.83	: 1.24	: 4.041	: 2.05	: 2.40
ARITH. MEAN	: 7.7	: 2.59	: 0.13	: 1.056	: 0.53	: 0.66
ARITH. STD. DEV	: 7.9	: 2.24	: 0.16	: 0.944	: 0.58	: 0.64
GEOM. MEAN	: 4.2	: 1.91	: 0.10	: 0.658	: 0.25	: 0.36
1ST QUANTILE	: 1.8	: 1.14	: 0.05	: 0.343	: 0.08	: 0.15
2ND QUANTILE	: 5.7	: 1.96	: 0.09	: 0.820	: 0.31	: 0.46
3RD QUANTILE	: 10.6	: 3.08	: 0.15	: 1.366	: 0.75	: 0.99

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : FERRBERG/DAILY/AIR					#16				PAGE : 1	
PERIOD OF REPORT : DEC 31,87 TO DEC 31,88										
	SULPHUR DIOXIDE UG/H**3	SULPHATE UG/H**3	NITRIC AS N UG/H**3	AMMONIUM AS N UG/H**3	NITRATE AS N UG/H**3	TOTL NO3 AS N UG/H**3				
# OF SAMPLES	: 330.0	330.00	330.00	330.00	330.00	330.00	330.00			
MAXIMUM	: 5.6	11.42	1.07	2.822	1.18	2.19	2.19			
MINIMUM	: 0.0	0.00	0.00	0.000	0.00	0.00	0.00			
RANGE	: 5.6	11.42	1.07	2.822	1.18	2.19	2.19			
ARITH. MEAN	: 1.0	1.38	0.10	0.327	0.08	0.18	0.18			
ARITH. STD. DEV	: 1.1	1.36	0.13	0.409	0.17	0.26	0.26			
GEOM. MEAN	: 0.7	0.96	0.12	0.181	0.14	0.13	0.13			
1ST QUARTILE	: 0.2	0.60	0.01	0.088	0.00	0.04	0.04			
2ND QUARTILE	: 0.5	0.99	0.06	0.199	0.04	0.09	0.09			
3RD QUARTILE	: 1.4	1.66	0.13	0.418	0.07	0.20	0.20			

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : GONGANDA/DAILY/AIR

PERIOD OF REPORT : FEB 3,88 TO DEC 31,88				PAGE : 1		
	SULPHUR DIOXIDE UG/HRS	SULPHATE UG/HRS	NITRIC AS N UG/HRS	AMMONIUM AS N UG/HRS	NITRATE AS N UG/HRS	TOTL NO3 AS N UG/HRS
# OF SAMPLES :	329.0	329.00	329.00	329.000	329.00	329.00
MAXIMUM :	76.6	17.38	1.24	3.429	1.06	1.25
MINIMUM :	0.0	0.00	0.00	0.000	0.00	0.00
RANGE :	76.6	17.38	1.24	3.429	1.06	1.25
ARITH. MEAN :	4.0	2.11	0.10	0.379	0.04	0.14
ARITH. STD. DEV :	8.9	2.51	0.16	0.504	0.08	0.19
GEOM. MEAN :	1.3	1.34	0.09	0.207	0.06	0.09
1ST QUANTILE :	0.2	0.68	0.02	0.091	0.00	0.03
2ND QUANTILE :	0.8	1.36	0.05	0.222	0.02	0.07
3RD QUANTILE :	4.3	2.39	0.12	0.443	0.04	0.16

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : HIGH FALLS/DAILY/AIR

PERIOD OF REPORT : DEC 31,87 TO DEC 31,88

PAGE : 1

	SULPHUR DIOXIDE UG/M**3	SULPHATE UG/M**3	NITRIC AS N UG/M**3	AMMONIUM AS N UG/M**3	NITRATE AS N UG/M**3	TOTL NO3 AS N UG/M**3
# OF SAMPLES :	362.0	362.00	362.00	361.000	362.00	362.00
MAXIMUM :	82.4	22.81	1.06	4.234	1.55	1.78
MINIMUM :	0.0	0.00	0.00	0.000	0.00	0.00
RANGE :	82.4	22.81	1.06	4.234	1.55	1.78
ARITH. MEAN :	4.5	2.46	0.11	0.505	0.07	0.18
ARITH. STD. DEV :	9.8	2.87	0.15	0.690	0.15	0.25
GEOM. MEAN :	1.5	1.52	0.10	0.242	0.08	0.11
1ST QUARTILE :	0.3	0.85	0.02	0.106	0.01	0.04
2ND QUARTILE :	1.3	1.54	0.05	0.251	0.03	0.09
3RD QUARTILE :	4.8	2.72	0.15	0.586	0.06	0.20

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : LONGWOODS/DAILY/AIR					#02						PAGE : 1	
PERIOD OF REPORT		DEC 31,87	TO	DEC 31,88								
		SULPHUR DIOXIDE UG/H**3	SULPHATE UG/H**3	NITRIC AS N UG/H**3	AMMONIUM AS N UG/H**3	NITRATE AS N UG/H**3	TOTAL NO3 AS N UG/H**3					
# OF SAMPLES	:	358.0	358.00	358.00	358.000	358.00	358.00	358.00				
MAXIMUM	:	60.9	41.19	2.67	8.956	3.38	3.90	3.90				
MINIMUM	:	0.0	0.00	0.00	0.000	0.00	0.01	0.01				
RANGE	:	60.9	41.19	2.67	8.956	3.38	3.89	3.89				
ARITH. MEAN	:	9.1	5.09	0.39	1.333	0.52	0.90	0.90				
ARITH. STD. DEV	:	8.6	5.80	0.38	1.354	0.53	0.69	0.69				
GEOM. MEAN	:	5.7	3.38	0.25	0.859	0.35	0.65	0.65				
1ST QUARTILE	:	3.0	1.97	0.12	0.484	0.15	0.37	0.37				
2ND QUARTILE	:	6.8	3.23	0.25	0.964	0.36	0.81	0.81				
3RD QUARTILE	:	12.2	5.85	0.54	1.652	0.71	1.19	1.19				

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : PENN. STATE/DAILY/AIR

PERIOD OF REPORT : MAY 11,88 TO DEC 31,88

PAGE : 1

# OF SAMPLES	:	217.0	SULPHUR DIOXIDE UG/M**3	218.00	SULPHATE UG/M**3	NITRIC AS N UG/M**3	AMMONIUM AS N UG/M**3	NITRATE AS N UG/M**3	TOTL NO3 AS N UG/M**3
MAXIMUM	:	120.4		40.72		1.36	5.884	1.29	2.30
MINIMUM	:	0.0		0.08		0.00	0.000	0.00	0.04
RANGE	:	120.4		40.64		1.36	5.884	1.29	2.27
ARITH. MEAN	:	11.9		7.36		0.38	1.526	0.15	0.53
ARITH. STD. DEV	:	13.8		7.79		0.25	1.334	0.17	0.34
GEOM. MEAN	:	7.3		4.81		0.30	1.109	0.09	0.42
1ST QUARTILE	:	3.9		2.69		0.19	0.581	0.04	0.27
2ND QUARTILE	:	8.2		4.26		0.34	1.064	0.09	0.49
3RD QUARTILE	:	13.4		8.10		0.49	1.998	0.18	0.73

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : WELLESLEY/DAILY/AIR

PERIOD OF REPORT : JAN 12,88 TO DEC 31,88

PAGE : 1

	SULPHUR DIOXIDE UC/H**3	SULPHATE UC/H**3	NITRIC AS N UC/H**3	AMMONIUM AS N UC/H**3	NITRATE AS N UC/H**3	TOTL NO3 AS N UC/H**3
# OF SAMPLES :	331.0	331.00	331.00	328.000	330.00	330.00
MAXIMUM :	70.1	51.28	1.56	14.213	3.70	3.94
MINIMUM :	0.0	0.01	0.00	0.000	0.00	0.00
RANGE :	70.1	51.27	1.56	14.213	3.70	3.94
ARITH. MEAN :	7.3	4.84	0.28	1.609	0.63	0.91
ARITH. STD. DEV :	8.5	5.55	0.34	1.695	0.66	0.75
GEOM. MEAN :	4.0	3.20	0.15	0.959	0.36	0.58
1ST QUARTILE :	1.7	1.85	0.05	0.508	0.13	0.29
2ND QUARTILE :	4.6	3.32	0.13	1.172	0.41	0.77
3RD QUARTILE :	10.2	5.44	0.34	2.153	1.00	1.35

PART VIII

SUMMARY STATISTICS OF AIR CONCENTRATION BY REGION

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : CENTRAL REGION/DAILY/AIR

PERIOD OF REPORT : DEC 31,87			TO	DEC 31,88		PAGE : 1	
	SULPHUR DIOXIDE UG/H**3	SULPHATE UG/H**3	NITRIC AS N UG/H**3	AMMONIUM AS N UG/H**3	NITRATE AS N UG/H**3	TOTL NO3 AS N UG/H**3	
# OF SAMPLES	: 653.0	656.00	657.00	651.000	657.00	657.00	
MAXIMUM	: 43.5	73.10	1.31	7.083	2.01	2.29	
MINIMUM	: 0.0	0.00	0.00	0.000	0.00	0.00	
RANGE	: 43.5	73.10	1.31	7.083	2.01	2.29	
ARITH. MEAN	: 5.0	3.51	0.21	0.742	0.16	0.37	
ARITH. STD. DEV	: 6.2	5.25	0.24	0.957	0.25	0.41	
GEOH. MEAN	: 2.4	2.12	0.16	0.390	0.10	0.22	
1ST QUARTILE	: 0.7	1.15	0.04	0.142	0.02	0.08	
2ND QUARTILE	: 2.8	2.04	0.12	0.385	0.06	0.20	
3RD QUARTILE	: 6.8	3.89	0.31	0.965	0.18	0.55	

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHEASTERN/DAILY/AIR

PERIOD OF REPORT : FEB 3,88 TO DEC 31,88

PAGE : 1

	SULPHUR DIOXIDE UG/HM*3	SULPHATE UG/HM*3	NITRIC AS N UG/HM*3	AMMONIUM AS N UG/HM*3	NITRATE AS N UG/HM*3	TOTL NO3 AS N UG/HM*3
# OF SAMPLES :	691.0	691.00	691.00	690.000	691.00	691.00
MAXIMUM :	82.4	22.81	1.24	4.234	1.55	1.78
MINIMUM :	0.0	0.00	0.00	0.000	0.00	0.00
RANGE :	82.4	22.81	1.24	4.234	1.55	1.78
ARITH. MEAN :	4.3	2.29	0.11	0.445	0.05	0.16
ARITH. STD. DEV :	9.4	2.71	0.16	0.611	0.12	0.22
GEOH. MEAN :	1.4	1.43	0.09	0.225	0.07	0.10
1ST QUARTILE :	0.2	0.77	0.02	0.099	0.00	0.04
2ND QUARTILE :	1.0	1.45	0.05	0.237	0.02	0.08
3RD QUARTILE :	4.6	2.58	0.14	0.505	0.05	0.18

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : NORTHWESTERN/DAILY/AIR

PERIOD OF REPORT : DEC 31,87 TO DEC 31,88

PAGE : 1

	SULPHUR DIOXIDE UG/H**3	SULPHATE UG/H**3	NITRIC AS N UG/H**3	AMMONIUM AS N UG/H**3	NITRATE AS N UG/H**3	TOTL NO3 AS N UG/H**3
# OF SAMPLES :	330.0	330.00	330.00	329.000	330.00	330.00
MAXIMUM :	5.6	11.42	1.07	2.822	1.18	2.19
MINIMUM :	0.0	0.00	0.00	0.000	0.00	0.00
RANGE :	5.6	11.42	1.07	2.822	1.18	2.19
ARITH. MEAN :	1.0	1.38	0.10	0.327	0.08	0.18
ARITH. STD. DEV :	1.1	1.36	0.13	0.409	0.17	0.26
GEOM. MEAN :	0.7	0.96	0.12	0.181	0.14	0.13
1ST QUARTILE :	0.2	0.60	0.01	0.088	0.00	0.04
2ND QUARTILE :	0.5	0.99	0.06	0.199	0.04	0.09
3RD QUARTILE :	1.4	1.66	0.13	0.418	0.07	0.20

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APLOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHEASTERN/DAILY/AIR

PERIOD OF REPORT : DEC 31,87 TO DEC 31,88

PAGE : 1

	SULPHUR DIOXIDE UG/M ³	SULPHATE UG/M ³	NITRIC AS N UG/M ³	AMMONIUM AS N UG/M ³	NITRATE AS N UG/M ³	TOTL NO3 AS N UG/M ³
# OF SAMPLES :	237.0	237.00	237.00	236.000	235.00	235.00
MAXIMUM :	82.6	28.15	1.57	5.668	1.16	2.01
MINIMUM :	0.0	0.00	0.00	0.000	0.00	0.00
RANGE :	82.6	28.15	1.57	5.668	1.16	2.01
ARITH. MEAN :	3.9	3.51	0.33	0.809	0.12	0.45
ARITH. STD. DEV :	7.0	4.89	0.35	1.116	0.16	0.42
GEOM. MEAN :	1.9	1.94	0.26	0.531	0.12	0.34
1ST QUARTILE :	0.6	0.66	0.07	0.120	0.03	0.13
2ND QUARTILE :	1.7	1.84	0.21	0.431	0.07	0.31
3RD QUARTILE :	4.5	3.97	0.66	1.013	0.14	0.70

ONTARIO MINISTRY OF THE ENVIRONMENT
SUMMARY STATISTICS OF AMBIENT CONCENTRATIONS
APIOS - ACIDIC PRECIPITATION IN ONTARIO STUDY

STATION NAME : SOUTHWESTERN/DAILY/AIR

PERIOD OF REPORT : DEC 31,87 TO DEC 31,88

PAGE : 1

# OF SAMPLES	:	777.0	SULPHUR DIOXIDE UG/M**3	777.00	SULPHATE UG/M**3	777.00	NITRIC AS N UG/M**3	777.00	AMMONIUM AS N UG/M**3	774.000	NITRATE AS N UG/M**3	776.00	TOTL NO3 AS N UG/M**3	776.00
MAXIMUM	:	70.1		51.28		2.67		3.70		14.213		3.94		
MINIMUM	:	0.0		0.00		0.00		0.00		0.000		0.00		
RANGE	:	70.1		51.28		2.67		3.70		14.213		3.94		
ARITH. MEAN	:	8.2		4.70		0.31		0.57		1.418		0.88		
ARITH. STD. DEV	:	8.5		5.45		0.36		0.60		1.482		0.71		
GEOM. MEAN	:	4.7		3.10		0.18		0.34		0.873		0.58		
1ST QUARTILE	:	2.3		1.80		0.07		0.14		0.476		0.31		
2ND QUARTILE	:	5.7		3.05		0.16		0.38		1.005		0.76		
3RD QUARTILE	:	11.0		5.35		0.41		0.79		1.795		1.24		

